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THE MUSEUM JOURNAL

VOLUME XV

THE UNIVERSITY MUSEUM
PHILADELPHIA
1924

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THE BULL OF HEAVEN.
FROM THE TEMPLE OF THE MOON GOD AT UR. DATE ABOUT 2600 B. C.

In the bull's forehead is the crescent moon, inlaid in shell. This remarkable object carved from steatite and inlaid with shell was found by the first Joint Expedition of the British Museum and the University Museum. It is now in the University Museum.

THE
MUSEUM JOURNAL

VOL. XV PHILADELPHIA, MARCH, 1923 No. 1

THE EXPEDITION TO UR

The Joint Expedition of the British Museum and the University Museum to Mesopotamia resumed excavations at Ur of the Chaldees and at the adjoining site of Tell el Obeid at the beginning of November last. Reports have been received from Mr. C. Leonard Woolley, the Director of the Expedition, showing the progress of the work from month to month. Abstracts of these reports are herewith printed together with some of the photographs made by the Expedition.

EDITOR.

November 5, 1923.

I HAD proposed to travel to Baghdad from Aleppo, taking with me the native foremen from Jerablus, whom I had gone North to secure; but owing to the formalities connected with the granting of their passports, I went back to Beyrouth and took passage from there to Baghdad in the Nairn Company's cars. I left Beyrouth on October 24 for Damascus, where I met Mr. Gadd, and we went on together to Baghdad, arriving there on the morning of October 28. At Baghdad Mr. Fitzgerald was waiting for us, having reached the town a week before.

We left Baghdad on October 31 and arrived at Ur on the following evening; we were kindly given quarters at the railway station pending the putting in order of the expedition house. My Jerablus foremen arrived on the night of the 2nd of November, and the goods stored at Basra and those sent out during the summer from England were sent up here by our Basra agents on the second and third of the month; I hope that work on the house will be finished tomorrow, November 4, except for the building of a garage

and of a new room for the foremen. Excavation proper is to start on Monday next, the 5th instant.

I am glad to report that the guards left in charge of the house and site during my absence have done their work well; all the property stored here is intact and in good order, and no wilful damage has been done to the site. The excavations have been to a considerable extent filled up by drift sand and a few of the walls badly weathered; this is unavoidable, and only justifies my intention of reburying excavated sites, after a decent interval, with spoil heaps from neighbouring areas; it is of advantage to have certain buildings open for the inspection of visitors, but it is useless to try to keep any permanently open as show places in a country where the sand drifts of a single summer suffice to rob them of most of their interest.

I shall begin work on the ziggurat (stage tower) on Monday next; work at Tell el Obeid should start a few days later.

November 17, 1923.

At Ur I have been working with one hundred and thirty men. Good progress has been made with the clearing of the southwest face of the ziggurat, and though much remains to be done results are already satisfactory. Until Mr. Newton arrives and a properly professional study can be made of the architectural features of the ziggurat, I do not wish to put forward any theories; but it seems fairly clear that we have remains of four stages in the building (which presumably therefore had seven stages, not four, as we had hitherto supposed) and certain deductions can be drawn as to the date and original character of the different elements in the structure. Fragments of foundation cylinders have been found recording the late work on the building carried out by Nabonidus, but otherwise the heavy labour of removing hundreds of tons of debris has not produced any movable antiquities of interest; such, if they occur at all, can only be found in the ultimate stages of the work.

On Monday the 13th inst. I started work at Tell el Obeid. The carrying on of excavations at two sites more than four miles apart has only been made possible by the presence of more than one trained native foreman and by the use of a car. Water for the workmen has to be brought from Ur Junction, a distance of six miles; for this donkeys are employed, by contract, as being cheaper

and more certain than motor transport, but even so the cost is above a pound per diem. Guards have to be employed on the site, and the workmen have to be provided with tent accommodation and firewood. The site has proved remarkably rich. House remains and tombs have been found of the earliest period, extending probably to the time of the Third Dynasty of Ur, and these have yielded great quantities of pottery, stone implements and bronzes, which will throw much light on the history of the time as well as form valuable Museum material.

Copper Bull from Tell El Obeid. A work of the 5th Millennium B. C.

The health of the members of the Expedition continues to be good. Weather is favourable, and there has been nothing to interrupt the work or disturb its progress.

November 30, 1923.

Excavation proper started on November 5th, Monday, 122 men being employed at the start. As my arrival became known, more of my old hands turned up, and the numbers of men employed increased to about 180. During the first week operations were confined to Ur, as the proposed campaign at Tell el Obeid needed more elaborate preparations; tents had to be provided for the workmen, and firewood, a water supply had to be arranged, and extra guards

engaged through the local Sheikh; moreover, as the men were distinctly nervous of working and living so far out in the desert, I thought it advisable to make a departure from usual rules and to arrange for a certain proportion of the men having arms with them. On Monday, 12th, my second foreman, Khalil, was left in charge at Ur, while Hamoudi with 60 men was sent to Tell el Obeid; since then work has been carried on regularly at both sites; I have had to devote most of my time to the Obeid excavations, while Mr. Gadd and Mr. Fitzgerald have taken it in turn to supervise the clearing of the Ur ziggurat.

The clearing of the ziggurat has proved heavier and slower than I had expected. On an average, 150 men have been employed on that job, with four lines of light railway, and after four weeks one face of the tower has been cleared, and on that a certain amount of work yet remains to be done. Hundreds of tons of debris have been removed, and the whole face of the tower has been laid bare. The result is certainly imposing. Until Mr. Newton shall have made a detailed study of the building, I do not care to say much as to the new information given by our work; but it seems fairly clear that we have the remains of four distinct stages, of which the lowest only was the work of the Third Dynasty kings, while the whole of the upper part was due to Nabonidus. Fragments of the foundation cylinders of the latter ruler have been found, and constitute practically the sum of the objects obtained by this heavy and expensive, but in my opinion most important, branch of our work.

On the other hand, the discoveries at Tell el Obeid have been of a very remarkable order.

I started operations on a low mound which proved to be a natural island, the cultural strata on which have suffered greatly from wind and water denudation. There were never on it any proper buildings, but only simple huts of wattle and daub inhabited by a few people probably concerned with the neighbouring temple. But the whole mound was used as a cemetery from the earliest times; I have not yet been able to work out any sequence, but those graves which I was inclined to regard as comparatively late prove to be not inconsistent with a First Dynasty of Ur date, before 4000 B. C., and I think it probable that this section of the cemetery in which we have been digging was not used after the beginning of the Third Dynasty, B. C. 2300. Forty five graves were recorded in the first week; they yielded masses of plain pottery—some 200 complete

or nearly complete specimens—and a few painted pieces, flint and obsidian implements, stone vases, copper tools and bowls, clay imitations of stone and copper tools, a few beads and some small objects. One vase is peculiarly interesting as bearing an early Sumerian inscription incised in the clay. The bones had for the most part decayed entirely, but we have secured some half dozen skulls and one complete skeleton, material which in view of its date ought to prove of the greatest importance for the solution of the Sumerian race question.

The amount of material afforded by the tombs and requiring attention was such that in the second week I moved the men on to the small building whose excavation was begun by Dr. Hall, intending to resume operations on the graves when the catalogue of objects had been brought up to date. This building has proved no less productive than the cemetery.

There are three buildings on the site. The first in date was the small building of Dr. Hall's plan, a rectangle with a projecting platform containing a staircase on its southern side, and another projection approached by a massive stone staircase on its southeast; it consisted of a platform with a containing wall of baked plano convex bricks, above which rose a building of plano convex mud bricks; the projections were in mud brick. The building was a temple of the goddess Ninkhursag, erected by the (hitherto unknown) King A-an-ni-pad-da, son of King Mes-an-ni-pad-da of the First Dynasty of Ur, about B. C. 4300, the third dynasty, according to Babylonian tradition, after the Flood. The marble foundation tablet, from which we derive our information, is the oldest dated document ever yet found; it proves the historic existence of a dynasty hitherto commonly regarded as mythical, and it gives a date, if not an authorship, for a very remarkable series of art objects.

The temple was decorated with a series of copper reliefs, 20 centimeters high, of reclining bulls; of these we have found up to date five more or less complete examples and two heads. The photos I send cannot do justice to these very remarkable works of early art; it is difficult enough to remove such delicate things from the mud brick in which they are embedded and to take the necessary measures for their preservation; to prepare them for exhibition is beyond our means and the limits of our time. Another form of decoration was by inlay in white limestone and other materials; the more complete examples of this that we have as yet show bulls and

A milking scene from the Temple of Nin-Khursag at Tell el Obeid. A work of the 5th Millennium B. C.

The inlay shown on p. 10 here shown in two sections. A work of the 5th Millennium B. C.

birds, which were set against a black background. Inlay was indeed very common. In stone we have fragments of a very large vase (or well head?) with reliefs of a peculiarly primitive character, contrasting strongly with the realistic art of the copper bulls, and a tantalising fragment of an animal relief on a large scale; two or three inscribed vase fragments are also more important for the promise they give of further finds than for their actual contents. Of the curious mosaic flowers we have numerous examples, some intact, with their petals in their original positions; whatever they were, they were not for insertion in walls; they seem rather to have stood upright on their long stalks, and perhaps formed an artificial garden.

A great deal of work remains to be done at Tell el Obeid, particularly for the complete elucidation of the plan. At present we can say very little about the later buildings. What is clear is that the First Dynasty temple was destroyed and that when it was rebuilt its whole plan was changed. The area was much enlarged, a new wall was put up enclosing the whole of the hill on the top of which the original structure stood, and the hill was terraced with solid mud brick masonry under which the old temple was completely buried;—all the objects mentioned above, which belong to the first period, lie under some five feet of mud brick, embedded in the debris of the earlier walls. The mud bricks of the second period are square, and their grey colour contrasts with the red of the first building; the burnt brick of the same period is also square yet bears the indented finger prints which characterise the plano convex bricks but are unknown later. This building may well belong to the Second Dynasty of Ur, about B. C. 3800. Later on it in its turn was destroyed, and on its enlarged upper terrace rose a temple constructed by Dungi, second king of the Third Dynasty, B. C. 2250. No remains of these later buildings worthy of note have yet been recovered.

Work is continuing on both sites, and I have every hope of success in the future equal to that already obtained.

Weather conditions have been unexceptionally favourable, and the health of the members of your Expedition has been uniformly good.

December 31, 1923.

Early in the month heavy rains interrupted the excavations at Tell el Obeid for two and a half days and at Ur for a day and a half; otherwise weather conditions have been remarkably favourable. This one brief interval was far from unwelcome, as it enabled us in some measure to catch up with the arrears of work in the house, which had become, and still are, serious. Christmas Day was observed as a holiday; the opportunity was taken to visit some of the small sites in the neighbourhood from which antiquities have been occasionally brought in to us. Otherwise work in the field has been continuous. At Ur the average number of men employed has been 120, Khalil id Jadur of Jerablus being foreman, assisted by Yahia, Hamoudi's son; Mr. Gadd and Mr. Fitzgerald have divided between them the supervision of this work, to which I have been able to give only occasional attention. At Tell el Obeid 60 men have been employed under Hamoudi, and I have been in regular charge throughout with assistance from either Mr. Gadd or Mr. Fitzgerald when such was required.

The excavation of the southwest face of the Ziggurat at Ur has been completed down to the later floor levels, which are practically those of the Third Dynasty, B. C. 2300–2200. A complex of chambers of a curious type has been laid bare, the buildings running right up to the ziggurat face and occupying all the area between it and the Temenos wall. In the doorway of one of the chambers was found a good inscribed gate socket of Bur-Sin, but this was the only object of importance unearthed in the course of the whole excavation; however, the work was undertaken with the full knowledge that objects were not likely to accrue, and the scientific results of the dig are fully adequate to the labour expended on it.

I proposed to deal next with the northeast face of the building, where there is reason to hope that the staircase may be found leading to the top of the first stage of the tower; but was faced with a considerable difficulty regarding the disposal of the rubbish. For the southwest face, a wadi breaching the line of the town wall had offered a convenient dumping ground; but to carry thousands of tons of earth right round the ziggurat from the northeast side to this wadi would have doubled the expense of the work, and to the northeast the only low lying ground was within the Temenos area, where buildings had certainly once stood, though another wadi had here

Ziggurat at Ur of the Chaldees during the excavations. The workmen are seen on the three stairways that ascend the tower on one side at three different angles.

too scoured out a channel which looked as if it might be below foundation level. This was a tempting area for our dump; but I decided that before it was so used it should be tested to prevent the possible burial of antiquities beneath our own rubbish. Consequently trenches were dug across the low ground, and almost at once walls were encountered which seem to be those of a temple dedicated to the deified king Gimil-Sin, B. C. 2220; and it became necessary to clear this building before continuing our main task of clearing the Ziggurat. This work is now in progress. Inscribed gate sockets of Gimil-Sin and of Kuri-Galzu, B. C. 1580, have been found in rooms bordering what seems to be the principal court of the temple. The temple itself appears to lie at the foot of a great terrace stretching up to the ziggurat; the containing wall of the terrace is decorated with a double row of engaged columns built of brick which are standing to a considerable height and retain their mud plastering and whitewash. The excavation of this large building should not take very long, and may prove remunerative; in any case, it is of great interest, and is essential to the continuation of work on the ziggurat.

A number of small antiquities have been brought in to us from an outlying part of the site, vases, cylinder seals, and good terra cottas which continue the series obtained last season from the same spot. As it is impossible to protect the area in question, which lies within the zone of occasional cultivation, and as it is desirable to learn as much as possible of the condition in which these figures are found—and to secure more of them—I propose to put in one or two days' work with our whole Ur gang on this site; the interruption to our main work will be small, and the results in the form of objects should be excellent.

At Tell el Obeid the excavation of the Nin-Khursag temple is complete except for the investigation of one or two underground features; most of the men were taken off on December 22.

The objects discovered at Tell el Obeid during the month have far surpassed in number and importance what I was able to report to you at its beginning. As is natural when architectural decoration is concerned, there has been a good deal of repetition, but even where this was the case it was gratifying to find that the further we went into the mound the better preserved were the objects it contained. The artificial flowers are now very numerous. The copper reliefs of bulls, of which I reported five, now number twelve more or less complete specimens and two spare heads; all these will be fine Museum

exhibits. There were found four statues of bulls in the round, made of thin copper plates on a wooden core which had gone to powder; three were headless, the fourth has a head but no horns; these were made separately, in a different material, and there can be little doubt that they were in gold, like the horn found by Dr. Hall. One of the bulls was in a hopeless condition; a second, better preserved, collapsed on removal, but may be capable of restoration; the other two I hope to be able to remove, though their removal is the hardest task that Tell el Obeid has yet set us.

Two mosaic columns were found, each 2.30 meters long. The greater part of one of these, removed with the tesserae in position, has been applied to a modern core and represents the column in its condition as found, i. e., with a certain amount of distortion, with some tesserae missing, and others shifted from their place; the remainder of this and the whole of the second column have been similarly removed, but their reconstruction as columns has been deferred for the present, and the drums are being kept in the flat. The successful lifting of these columns was also a difficult task, but we have at least an unexpected illustration of temple decoration at the period and a very fine Museum piece.

In my last report I spoke of two bulls carved in relief in white limestone for inlay. At the beginning of the month we found examples like these but much more delicately carved in shell. Then a complete panel was discovered. It was lying on its face in the hard soil; the board which had been its original backing had disappeared and the bitumen which had fastened the inlay to the board was reduced to powder with no more powers of adhesion. The bitumen was hardened with wax and the copper border framing the relief was thoroughly strengthened, and the panel was lifted intact. It shows five oxen, carved in white shell and set against a mosaic background formed of pieces of bitumen paste; the whole is quite perfect. The panel not only illustrates Sumerian art in a combination of materials which one would never have expected to recover in good condition from a soil generally so adverse to the preservation of antiquities, but it proves that art to have possessed a technical quality which in the fifth millennium B. C. can only be called amazing. Later, a similar panel with six cattle was recovered, also complete, but in less perfect condition, as the whole panel had buckled in the middle at the time of its fall, and several of the pieces of inlay have been pushed out of position; it needs more work than I can afford

Stairway of the Ziggurat or Stage Tower at Ur. Excavated by the Joint Expedition.

to put in here to restore the pieces to their place, but the panel will be just as fine a thing as the first. A third panel, exactly similar, is less complete; three bulls are intact, but of the other two the background has fallen away and the animals themselves are separated from their setting; this piece therefore needs a certain amount of reconstruction. Another smaller fragment has two bulls, carved in stone instead of in shell, and the head of one of these is missing. The finest of all, though it is carved in stone instead of in shell and is consequently rougher in execution, is no less than 1.15 meters long. When found, the two ends were bent out of the straight and some of the inlay there had started from its position and a few pieces were missing; these ends have been straightened out and the inlay replaced. The relief shews on the left a group of four men engaged in the straining and storing of some liquid, wine, oil or clarified butter; in the centre is a byre built of reeds, with spears set up against the doorposts, out of which come two heifers; on the right are two groups of men milking cows into long slender vases; in front of each cow is a calf, its head muzzled with rope to prevent it from being suckled. The panel, with its genre subject, is most unusual and of the greatest interest.

Found close to this last, and probably originally forming part of the same frieze (though its copper frame, not shewn in my photograph, is rather wider than that of the animal scenes) was a limestone plaque shewing a manheaded bull with a bird on its back, the whole carved in low relief; this is much more characteristic of Sumerian art as it was known to us before the discovery of the Tell el Obeid panels and reliefs, but of such it is an excellent illustration, and the subject, obviously religious, is not without considerable interest. Also more in the known Sumerian style is an engraving on shell, unfortunately fragmentary, of a bull seen against a background of branches and foliage; this was found astray in the debris, and its connection with any scheme of decoration cannot be guessed. A remarkable discovery, due to the rains disintegrating the heavy clods of mud brick, was that of a large gold scaraboid, fifteen millimetres long, engraved on the back with the name of A-an-ni-pad-da, the builder of the Nin-Khursag temple in the First Dynasty of Ur, about B. C. 4340. It is really a rather sensational find, and the form of the bead will appeal strongly to Egyptologists.

The graves continue to produce great quantities of plain pottery, stone vases, copper vessels and tools. The finest single object

found so far is a long copper pin with a head formed of a sphere of lapis lazuli capped with gold. The skeletal remains are better preserved than was the case in the graves dug earlier in the season, and I hope to send home soon for scientific examination a number of skulls and other bones, for whose immediate export I have obtained the sanction of the Iraq authorities.

Through the kindness of members of the Royal Air Force I have been able to obtain excellent air photos of Tell el Obeid and of Ur, the latter shewing last season's work on the Temenos wall and E-Nun-Makh, and the clearance of the southwest face of the Ziggurat.

January 31, 1924.

Mr. Newton joined me on the 15th of the month and has taken in hand the work of the plans and drawings. Your staff is therefore now at full strength.

Since for a month or more I had been suffering from constant neuralgia, I took advantage of Mr. Newton's arrival and on the evening of January 20 went to Baghdad, returning in the night of January 24. This is the first occasion on which a member of the staff has been away since work started. On January 17 Miss Bell, Hon. Director of the Department of Antiquities, paid us a visit, remaining till the following evening.

Work at Tell el Obeid stopped on January 5. The excavation of the Nin-Khursag temple was complete, and on the cemetery as much work had been done as I considered advisable; the quantity of pottery turning up was such that its classification, and proper recording presented a formidable task, and the clearing of further tombs seldom did more than duplicate material already found; it may be necessary in future to do more work here, but that is better postponed until the working out of type sheets makes quicker progress possible. A day's experimental digging on two other cemeteries close to Tell el Obeid, one of Kassite and one of later date, sufficed to prove that both had been too thoroughly denuded to repay excavation.

On January 4, the Ur gang, under Messrs. Gadd and Fitzgerald, was for two days set to work on a site known as Diqdiqah, a piece of low lying ground near the railway, on the outskirts of Ur, whence

Building excavated near the Ziggurat at Ur.

the men had for long past been bringing in vases and terra cottas (most of the terra cottas obtained last year came from this site). There was no intention of embarking on a big dig, but it seemed essential to ascertain, if possible, the character and date of what was known to be a productive spot. In this we were fully successful. The site proved to be a cemetery; the ground had suffered much from denudation (and probably also from agriculture) and most of the graves had been broken up, the objects from them being found loose in the soil; all the dateable objects, such as cylinder seals and bricks, were of the date of the Third Dynasty of Ur, B. C. 2300–2200. This discovery was as unexpected as it was important, for last season we had assumed that the terra cottas were of late, Neo-Babylonian or Persian period, whereas though we have not found them actually associated with Third Dynasty cylinders in intact graves, yet the evidence for their early date is now convincing; and even allowing for a certain admixture of later examples (for which there is in fact no evidence at all) we are obliged to assign to this early date the bulk at least of the very remarkable series of figures and reliefs from the Diqdiqah site. Some of them are obviously of early and even of primitive type, but others are very surprising for their period; most of the representations are of types hitherto unrecorded.

The greater part of the month has been devoted to the excavation of the building mentioned in my last report as lying below the ziggurat and to that of the ziggurat itself. As regards the former building, my first suggestion, that it was a temple of the deified Gimil-Sin, is almost certainly incorrect, as the inscribed door socket on which this suggestion was based was undoubtedly reused and did not originally belong to the construction in connection with which it was found. The real name and use of the building have yet to be discovered.

What we have found up to the present is a great courtyard surrounded by chambers, the whole lying in the north corner of a platfrom raised above the ground level to the northeast and northwest and contained by a massive wall of burnt and mud brick strengthened by heavy buttresses. If we are to judge by the chambers along the northwest side, which alone have been cleared, and are peculiarly long and narrow in proportion to their walls, it might be more correct to say that the courtyard is surrounded by a terrace wall some ten metres thick containing intramural chambers. The courtyard is about seventy five metres long and fifty metres wide

and is paved throughout with brick; at each end there are three doors giving access to five rooms, on the northeast side five doors, and on the northwest three. Three sides of the court are decorated with buttresses symmetrically arranged, but the fourth side, that to the southwest, lying in front of the ziggurat, is more remarkably ornate; the whole wall face is composed of attached half columns each relieved by a double or T shaped recess running down its centre, these being built of specially shaped crude bricks mud plastered and whitewashed; parallel to the wall and at a distance of about four metres from it runs a low sleeper wall in the brickwork of which can be seen the circular sockets for free columns whose shafts, almost certainly of wood, have disappeared. On this side then the court was bounded by a colonnade presumably supporting a roof which ran back to the columned wall behind. It is no exaggeration to say that this discovery revolutionizes our ideas of Babylonian architecture. At the conclusion of many years' work at Babylon the German excavators felt justified in saying that the column was unknown in Babylonia before the Persian period, yet here we have such a columned portico as might have graced a Greek agora or a Roman forum.

The building in its present form was erected by Kuri-Galzu in the 16th century B. C.; below it are earlier remains wherein occur stamped bricks of Bur-Sin, of the Third Dynasty, B. C. 2240, and in one place were found, perhaps in situ, two large inscribed cones of Arad-Sin of the dynasty of Larsa, B. C. 2000. Extensive repairs to Kuri-Galzu's building were carried out by Sinbalatsu-ikbi, Assyrian governor of Ur under Ashur-banipal, B. C. 650, following the lines of the original ground plan but at a higher level; one of his foundation cones was found in position in a doorway. Later still Nebuchadnezzar, B. C. 604–561, repaved the whole area at a much higher level and dug a well in the north corner; practically the whole of his work has disappeared with the denudation of the site, but judging from the fact that the original doorways continued in use, he too would seem to have retained more or less the old plan.

No attempt is being made this season to excavate the whole of this very large building. The rooms along the northwest wall have been cleared, together with the northwest end of the courtyard; a wide cut has been made along the whole of the columned wall on the southwest, but the actual cleaning of the face of this has been left over until the end of the work, when danger of the destruction of

the columns through rain will be less; this is particularly necessary in view of the intention of the Department of Antiquities to take steps for the permanent conservation of so remarkable a feature. For the rest, the walls have been merely traced to a depth of some two feet, whereas they are standing in many places as much as two and three metres high. I hope later on to have the means to clear the southeast end, so as to establish the connection between the court and the E-Nun-Makh temple.

Artificial Stone Flowers from Tell el Obeid.

The bulk of the labour during the month has been expended on the clearing of the northeast face of the ziggurat, on which for some time past the whole gang has been employed. Good progress is being made with this work, which is very heavy and consequently slow. Since the presence of the large building described above has made it impossible to throw earth on the low ground close to the ziggurat, the spoil heaps are being carried through the northwest gate clear of the city wall; already we are using in all some five hundred yards of railway, and the distance increases daily. As regards

results, I would at this stage say no more than that we have partially cleared the stairway leading to the ziggurat top and the platform built in front of the tower proper by Nabonidus, B. C. 555–539.

As was to be expected, objects have not been numerous this month. Diqdiqah has produced the terra cottas, a quantity of contemporary pottery, beads, including a few nice gold beads, and inscribed cones of Ur-Engur, B. C. 2304, commemorating the digging of a canal, and many cylinder seals. From Ur, our best finds have been an inscribed basalt door socket of Ur-Engur, one in limestone of Kuri-Galzu, B. C. 1580, the latter a better example than most of the Kassite door inscriptions, and a fragment from a life size diorite statue giving the lower part of the face, Third Dynasty work in the style of the Gudea statues in the Louvre but of finer quality than they; this is one of several fragments found below the ziggurat which hold out hope of better things.

March 8, 1924.

Today the whole working gang was paid off, and this evening the three foremen from Jerablus were sent away. The packing of the antiquities is well advanced, and I hope to take them all down to Basra on Tuesday next; in this connection I should like to express my thanks to the Royal Air Force, which has supplied gratis the many packing cases required, thus saving the Expedition a very heavy item of expense. As the clearing of the Ziggurat has been carried on up to the last moment, Mr. Newton had naturally not been able to complete all the plans and sections, or even to record all the material for the same; consequently the Staff of the Expedition are stopping on here for about another week and will not leave Baghdad until March 19. I have arranged to give a public lecture in Baghdad on the season's work. On March 2nd nearly one hundred people, British and native, from Basra and the northern towns of the Persian Gulf paid a visit to Ur, in a violent sandstorm. I am sure that the general interest aroused by such visits will be greatly to the advantage of your Expedition, which must depend in no small degree on the good will of the officials and the people.

Since my last report, all work has been centered on the Ziggurat, the clearing of which has been more thorough than had seemed probable. No more has been done on the southwest side, where we

had already dug down below the Nabonidus level. On the northeast front the three staircases have been exposed and the ground level was first cleared down to the floor of the Nabonidus period, and then this was removed and the level carried down to that of Adad-apluiddina, a king of the Fourth Dynasty of Babylon, B. C. 1085, little known from his monuments, who carried out certain repairs on the Ziggurat and in the courtyard building below. The southeast end was cleared as far as the Nabonidus level, and the northeast end practically the same, but here it was not advisable to go lower, as

Lower portion of the face of a statue found at Ur.

we would have encountered buildings of the early period whose excavation might well require a whole season's work.

The Ziggurat, which when we came was simply a mound rather higher than the rest, now stands up isolated as a building which completely dominates the site. On three sides it rises sheer, on the other, the northeast front, three great staircases lead up to the top of the first stage. The central stairs have lost their treads, but the other two flights retain most of their hundred steps and these for the most part well preserved. Of the upper stages not a great deal is left, but there are sufficient indications of the arrangement of the building for Mr. Newton to have worked out a restoration in which little but the details can be called conjectural.

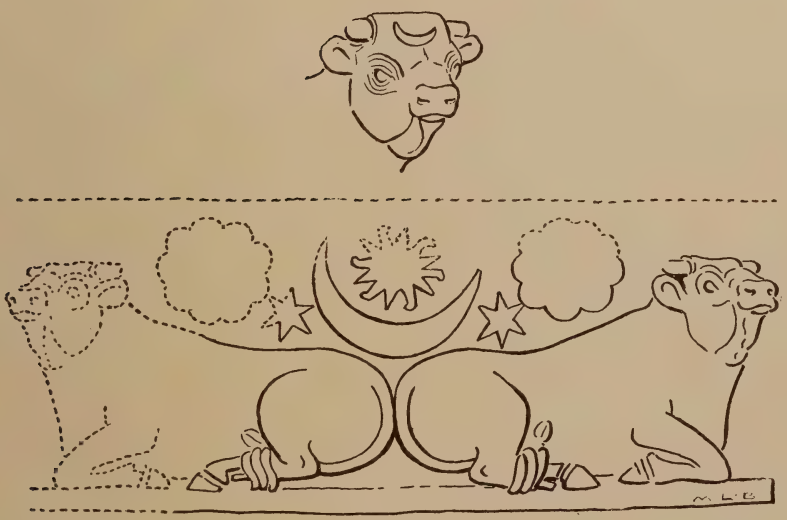
The whole of the lower part of the structure is due to Ur-Engur, whose Ziggurat underwent little change or repair until the New Babylonian period; on the top we have identified a wall, that of a temple or, more probably, of a platform, belonging to Ur-Engur's original plan, the corner of which has been dug into by Nabonidus in his search for foundation deposits, but it is impossible to reconstruct the scheme of the earliest building. A remarkable point is the relatively high level occupied by the Ziggurat, whose foundations are very much above the level of the original plain; it was built, from the outset, upon an artificial platform, and it is justifiable to assume that this platform conceals the remains of an earlier building, probably itself a Ziggurat.

Inlaid bulls from the wall of the Temple of Nin-Khursag at Tell el Obeid.

Nabonidus did no more than repair the lower part of the Ziggurat, raising the level of the stairs to correspond with the rise in the surrounding ground levels. On the top, he completely remodelled the building, burying the remains of Ur-Engur's work under his new terrace stages. His upper structure seems to have been curiously irregular. The three flights of steps converge to a point almost (but not quite) in the middle of the northeast front; but the entrance to the shrine, and the stairway leading to it from the lowest stage, were on the southeast. The terraces were not strictly uniform, and the height of the ziggurat was greater at one end than at the other, and the shrine, the highest feature of the building, was not in its centre.

I feel that I ought not to end my last report on the season's field work without expressing my thanks to my staff. I suppose that to

Mr. Fitzgerald, as a volunteer, I ought to feel especially indebted, but as a matter of fact I cannot be more grateful to him than I am to the others for their unwearying assistance and good companionship. The season's programme has been a fairly laborious one; they have made it both possible and pleasant.



The Bull of Heaven as represented on a Steatite bowl. The outline above shows the forehead of the bull with the inlaid crescent. Found in the Temple of the Moon God at Ur.

A GROUP OF THEBAN TOMBS

Work of the Eckley B. Coxe Jr. Expedition to Egypt

By Clarence S. Fisher

DURING the winter seasons of 1921–22 and 1922–23 the University Museum chose for its field of operations in Egypt a portion of the necropolis of Thebes. This cemetery stretches for several miles along the western bank of the Nile opposite Luxor and has rightly been considered for many ages one of the most important localities of its kind in Egypt. As early as 2200 B. C. it was the burial place of the mysterious Antef kings, who quarried with inestimable labour those enormous tombs which lie near the fields at the northern end of the area. Though used over a long period of time the cemetery attained its greatest extent and splendor between 1580–1090 B. C., when it became the necropolis of the Kings and Queens of the XVIIIth to XXth dynasties and their courtiers. Of this period we have an almost unbroken series of royal tombs of which the grandeur of conception, the scale of construction and above all the beauty and freshness of the interior decorations, cannot be equaled anywhere else in the world. So impressive are these sepulchres that they have rather overshadowed the many hundred smaller tombs built for the officials of the court of Thebes throughout this period. Of these only a very few are ever visited by tourists, yet in some ways they appeal to us much more strongly than do the royal tombs. Instead of the walls being covered exclusively with endless symbolic and mysterious religious scenes we find depicted on them not only a simplified series of views of the funeral procession in its various stages, with the mourning women and the array of offerings borne to the grave, but also many pictures illustrating the daily life of the people. These were drawn with exquisite grace and charmingly colored, with here and there touches of humor that give us a glimpse into the real underlying happiness of the people. The owner seated in a pavilion hung with garlands reviews his herds and flocks or overlooks the workers in the fields, ploughing, sowing and reaping. Or in the midst of his family at home, he enjoys himself with singing, dancing and feasting. Occasionally he indulges in his favorite pastime, a hunting trip on the

A wall painting from a tomb at Thebes. The Lady Mersagret, wife of Bekenkhonsu, as she appears on the wall of his tomb. Bekenkhonsu was the First Prophet of Amon, in Thebes. The Lady held the title of Chief of the Harem of the god Amon. A heavy black woolen wig covers her auburn tresses. In her left hand she holds a gilded sistrum together with a lotus flower.

A WALL PAINTING FROM THE TOMB OF REYA AT THEBES. REYA, FOURTH PROPHET OF AMON WITH HIS WIFE MUTEMWAYA, A SINGER IN THE TEMPLE. THEIR FAVORITE PETS ENJOY A FEAST OF MEAT AND FRUIT BELOW THE CHAIRS.

river, when he snares the water fowl, spears the fish or even goes after the larger game that lurked along the reed covered banks. His employees on the estate go through their various occupations, gathering grapes and pressing out the wine, salting the fish and fowls for future use, or engage in making up the different articles which they need in their work. They are very human documents and enable us to reconstruct a fairly complete picture of the daily life in one of the richer households of the second millennium B. C., a routine that really varied little except in minor details during the whole period of dynastic Egyptian history.

In addition to the cost of constructing his tomb, which he completed as far as possible during his life, the expense of the actual burial of a wealthy noble was so large as to have been a drain on his estate comparable to the death duties of today. We have recently learned how rich and elaborate was the equipment supplied for the tomb of one of the lesser known kings of Egypt, and it was the hope of all officers of state, to emulate the king in this so far as their rank and wealth permitted. The preparation for the funeral occupied several months. Furniture had to be made like that actually used during life, chests of fine linen and clothing were made ready, with statues of the deceased and of the protective dieties, the latter usually enclosed in elaborately carved and gilded shrines, and a vast quantity of smaller objects such as walking sticks, jars of ointment and incense and supplies of food, were collected and placed in the chambers of the tomb. When we add to the cost of these the value of the gold ornaments and the precious jewels that were also buried, we realize the amount of wealth that was disposed of annually for this purpose.

It was one of the fundamental requisites in Egyptian religious beliefs that the body of the deceased should be preserved intact throughout eternity, and much pains and ingenuity were expended to accomplish this end. Tombs were constructed with false doors and misleading passages so that the location of the actual tomb chamber was concealed. But the knowledge that such riches were concealed in the Theban cemetery did not lessen the possibility of spoliation. Even at a very early date in Egyptian history there were persons willing to risk the wrath of the gods and incur the severest earthly penalties to enrich themselves with the spoils of the dead. Our former excavations at Gizeh and Dendereh showed us that even the undertakers entrusted with the disposal of the corpse in its final

Headquarters of the Museum Expedition at Thebes.

resting place were not disinterested. Bodies have been found in sealed tombs and in coffins with the lids still undisturbed, with their hands, feet and heads severed so that the jewelry and ornaments could be removed quickly. Having done this at the last moment, the workmen covered up the traces and departed with their loot, never failing to collect in addition the amount due them for their services from the family. During the reigns of the later Ramesside pharaohs the systematic plundering of the Theban tombs by organized bands became such a public scandal that a commission was appointed to investigate the matter. The thieves were rounded up and the official records containing the evidence submitted by them have survived, recorded on rolls of papyri. The robbers did not spare any labour in attaining their ends. After finding one tomb in the midst of a group, they tunneled underground to an adjoining one and thus could loot a whole row of chambers without their work becoming apparent to any one on the outside. There were of course special guards residing in the cemetery to protect it against such depredations but we can well believe that it was not difficult to secure their absence at the critical time by some division of the spoils.

While these people took away an immense quantity of valuable material, they had no use for the heavier objects, the stone and wooden coffins, and furniture. They were careful to leave these apparently as intact as possible in order to conceal their depredations from a chance honest inspector. Later tomb robbers have not been so considerate. During the Middle Ages there arose in Europe a demand for the bitumen with which the mummies had been prepared, as it was supposed to have some medicinal value. The cemeteries were the only source of supply for this and countless tombs were searched for the bodies which were then ripped to pieces and hopelessly destroyed. Later still the wooden equipment as well began to have a commercial value, and the great Arabic scholar, Edward W. Lane, while staying at Luxor, records that his meals were prepared over a fire replenished with pieces of gorgeously decorated sarcophagi brought by the donkey load from across the river. The final phase came with the advent of the modern tourist and his demand for souvenirs of his visit. To this period we owe the wholesale destruction of the decorations on the walls themselves, as many beautiful reliefs were wantonly mutilated to secure one coveted head. Happily the native has now discovered that it is far more profitable and less risky to pass off upon the tourist an excellent

The Upper Cemetery during the excavations.

The lower series of tombs in the Upper Cemetery. Tomb 284 in the immediate foreground.

forgery which gives just as much satisfaction to the purchaser. When we consider the long period of systematic destruction to which the Theban tombs have been subjected, our wonder is not that there are so few of them left with their contents in whole or in part intact, but that there are any left at all.

The Museum's concession included a portion of the cemetery area. It extended from the long causeway leading up to the Temple of Hatshepsut at Der-el Bahri, eastward along the main cliff as far as the deep ravine which cuts deeply into it at the village of Dra-abul-Neggah. The northern boundary followed the watershed of the cliff, adjoining Lord Carnarvon's concession to the Valley of the Tombs of the Kings, the entrance to which lay but a short distance to the north of our headquarters. The east and west boundaries gradually converged towards the south until they just included the small mortuary temple of Queen Aahmes-nefret-ari at the edge of the cultivation near the Seti I Temple.

Within these limits, as in most other parts of the necropolis, one may divide topographically the tombs into two groups, which for convenience may be designated as the Upper and Lower cemeteries. The Upper cemetery included only those tombs which had been cut into the sloping sides of the cliff, and as this was considered the choice position during the New Empire, it was preempted by the high priests of Amon, and such of the higher military and civil officers as had sufficient influence to get a burial lot there. The Lower cemetery lay between the foot of the cliff and the edge of the cultivation and contained only the graves of the minor dignitaries and those who could find no place on the slopes above. The efforts of the Expedition were directed principally to clearing the large tombs in the Upper cemetery and the work here occupied most of the time during the two seasons. During the second year, time was found to clear a long strip of the Lower cemetery including the whole of the Aahmes-nefret-ari Temple and a small part of a mound called the Mandara situated at the mouth of the deep ravine forming the eastern boundary.

In our portion of the Upper cemetery, the slope of the cliff was broken about half way up by a narrow terrace which extended fairly level for several hundred feet and then gradually sloped down into gullies at the east and west. The lower slope was practically covered with the mud brick houses of the modern Arab town of Dra-abul-neggah, in each case a house marking the position of a

A WALL PAINTING FROM THE TOMB OF PASIUR AT THEBES. THE JUDGMENT OF PASIUR. HIS HEART IS BEING WEIGHED AGAINST A FEATHER, THE EMBLEM OF TRUTH. ANUBIS, THE GOD OF THE UNDERWORLD, SUPERINTENDS THE WEIGHING. ABOVE SIT NINE DIVINE JUDGES.

tomb. The entire village owes its existence to the fact that in this district, excessively hot in summer, a cool subterranean chamber is a necessary adjunct to a dwelling, and the rock caverns were a cheap and easy way of obtaining it. When not used for sleeping they made fine stables and storerooms for crops. The chance of finding treasure was also an added incentive for the selection. So whenever a man discovered such a tomb he immediately staked off a building lot in front of it and by this occupation acquired a legal title to the property. The government is now making arrangements to move the entire village to a new site down near the fields so that what little remains of the decorated walls of these tombs may be protected and preserved.

From a preliminary investigation of the site it appeared unlikely that any tombs of importance could exist in the western gully. The whole of the rock below the level of the terrace consisted of a poor loose conglomerate which must have rendered tomb cutting extremely dangerous and unsatisfactory. A few small tombs which had been found here previously proved this. The more likely area lay to the east. First the surface of the terrace was tested over a considerable space, no graves of any sort being found to the west of a large rock tomb, No. 282, which already lay open. This made available a large area for the dumping of rubbish from any tombs that might be cleared. From No. 282 the work of clearing the whole surface was then carried across the face of the hill. Almost at once there were interesting developments. The eastern gully was longer than at first appeared and its upper end had become filled up with a mass of broken stone and chips thrown into it at some stage in the construction of the large tombs above. This mass had completely buried several small tombs. It had been supposed that a Theban tomb consisted merely of the chambers cut in the rock, but as the space in front of No. 282 gradually opened up, it was found that there was a large square court in front of the rock portion with a monumental gateway or pylon. During the early centuries of our era this court had been built over with small mud brick houses, and according to a number of ostraka of stone and pottery with religious inscriptions found in them these must have been the habitations of Christian monks. As the work progressed similar features were found in a number of the tombs and gradually the whole cemetery disclosed a group of Ramesside tombs complete with forecourts, rock chambers and superimposed pyramids.

Tomb 282 had a plan which was typical of the Ramesside group. It belonged to Haqa.Nakht or Nakht, who not only was a royal scribe, but also bore the titles of Chief Archer of Kush, Desert Overseer of the Southlands and a Fan Bearer on the right of his Majesty (Ramses II). In making the tomb a trench somewhat wider than the proposed court was driven into the sloping face of the hill until the depth of rock reached was sufficient to contain the height of the entrance and also allow space for the thickness of the roof. In this instance the cutting was 54 feet wide and the scarp at the inner end 18 feet high. The space thus obtained became part of the court and the plan was completed by extending the lines of the sides with walls of sun dried brick and filling in the fourth side, towards the valley, with a large pylon gateway. The brickwork was built against the face of the rock, so as to mask all the irregularities left by the quarrymen. All masonry was probably erected after the rock chambers had been completely cut out and the debris removed. After the brick walls were in place the floor of the court was paved with slabs of stone. A line was marked several inches inside the face of the brickwork on this, first with red and then slightly picked out with a chisel, to serve as a guide to the masons in placing a final casing of stone over the walls. In No. 282 the casing was carried around all four sides of the court and through the door but not along the exterior of the pylon which was finished with white stucco to imitate stone. The entire pavement of this area had been removed leaving only some of the slabs in position around the sides. No evidence of any piers or columns around the court remained, but as the size and shape of the court was similar to that of the adjoning tomb, 283, which had a colonnade around the court, such a feature doubtless existed here. Only a few fragments of the relief and colored decoration on the walls of the court were found in the debris as the fine casing provided excellent material for later builders. At the centre of the south side of the court, that is, on the left as one entered it, had stood the main funerary stela of the owner, a slab of limestone or sandstone, sometimes colored to represent red granite, from three to five feet high and half as wide, with a rounded top. On it was a relief or painted panel showing the deceased presenting his offerings to Osiris, with a long inscription below giving name, titles and prayers to the god for his proper arrival and happiness in the next world. Sometimes this stela was erected in a shallow niche left for it in the masonry.

A PAINTING FROM A TOMB AT THEBES. A PORTION OF THE CEILING. MARSH FOWL FEEDING AMONG THE LOTUS PLANTS.

Funerary stela of the priest PA. EYRO, found in his tomb No. 60, in the Lower cemetary. Limestone with decoration in blue.

From this court a door led to the offering chamber which with all the succeeding chambers was cut wholly in the rock. The first chamber extended crosswise of the tomb and in No. 282 was 41 feet long and 11 feet wide, with a slightly vaulted ceiling. At either end were cut deep alcoves, with figures of the owner and his wife seated. The woman was placed at the right of her husband, with her left arm around his neck. When working in poor rock the masons often had to contend with difficulties. Embedded in the conglomerate were large boulders of hard stone, which if removed would have left awkward cavities in the sides or brought down upon them the whole ceiling. On the other hand the stones were too hard to chip off and they were left projecting from the walls or ceiling. Large fissures in the rock and all the deeper irregularities were blocked up with stones and bricks, and the rough face of the rock was evened up with a thick layer of mud mortar containing plenty of cut straw. Over this was a finishing coat of fine white stucco, on which was painted the decoration. The general scheme was blocked out by the master painter, who then placed the task of working out the details and applying the color in the hands of his assistants. Either as suggestions to his assistants or as studies for the heads of figures, small sketches were often made on a fragment of stone or pottery. During the progress of the work, he would make periodical rounds of inspection and sometimes finding a figure out of scale or an arm or leg not properly drawn, he would correct it, leaving both the original and the revised outlines. The decoration, as has been said, consisted of domestic and agricultural scenes or the owner making flower and food offerings before Osiris. A large portion of space was given up to showing the progress in the journey of the departed into the next world. Mingled with the drawings were long inscriptions repeating over and over again religious formulæ and texts. The ceilings were always charming. Within a wide border of lotus flowers and coloured bands, the surface was divided into an even number of squares, each one filled with its own separate all over pattern of conventional leaves, spirals or flowers, arranged with admirable care and harmoniously colored. From the first chamber a long corridor led at right angles into the rock ending in a small chapel or offering niche, containing another pair of seated statues. On the left side of the corridor near this chapel a rough door opened on to a tunnel winding down to the burial chamber often many feet below the level of the offering rooms. Except in one very large and elaborate tomb to be

described later, the tunnels and burial chambers were left in a rough state and the walls never finished or decorated. The burial chamber contained one or more sarcophagi which had been hauled into position before the death of the owner. The lids were also made ready and placed in narrow side alcoves, where they lay out of the way until the interment took place, when they could easily be slid into position. In No. 282, the two sarcophagi were of red granite. Both had been broken open and parts of the covers demolished. In one was a second case of finely finished stone, but no traces remained of the inner wooden coffin with the cartonnage enclosing the mummy. After the burial was placed in its coffin the opening from the corridor was sealed with masonry and the surface plastered over to correspond with the walls of the corridor. It was plainly the object to conceal the exact position of this entrance, that the burials should remain undisturbed, but the work was often crudely done and the ancient robbers working with some knowledge of the plan of such a tomb, knew approximately where to look for it. Sometimes they missed the opening by several feet but as soon as they realized their error, they turned their own tunnel until it joined the older one. In several of the tombs a false door was carved opposite the actual one so as to mislead any plunderers.

We now turn to the most important external feature of these tombs. In completing the court, the enclosing walls were carried above the roof of the colonnade and continued as a low wall across the rock scarp at the back. The latter wall prevented any earth and stones dislodged from the slope above falling into the court. Higher up the slope and as nearly as practicable over the inner chapel of the tomb was built a pyramid of brick. A narrow platform was first constructed to serve not only as an ornamental base as seen from the front, but also as a level surface on which to lay out accurately the front of the structure and thence work out more easily the other dimensions of the pyramid. The greater portion of the latter was built on the rough natural rock surface and considerable ingenuity had been displayed in its construction, as the successive courses of brick kept a uniformly horizontal level throughout the height of the structure, while the slope of the sides and the symmetry were well maintained. The pyramids are different from the familiar type at Giza belonging to the Old Empire. In the Ramesside type the shape is not so pleasing, the slope being much steeper, thus increasing the proportion of height to the width.

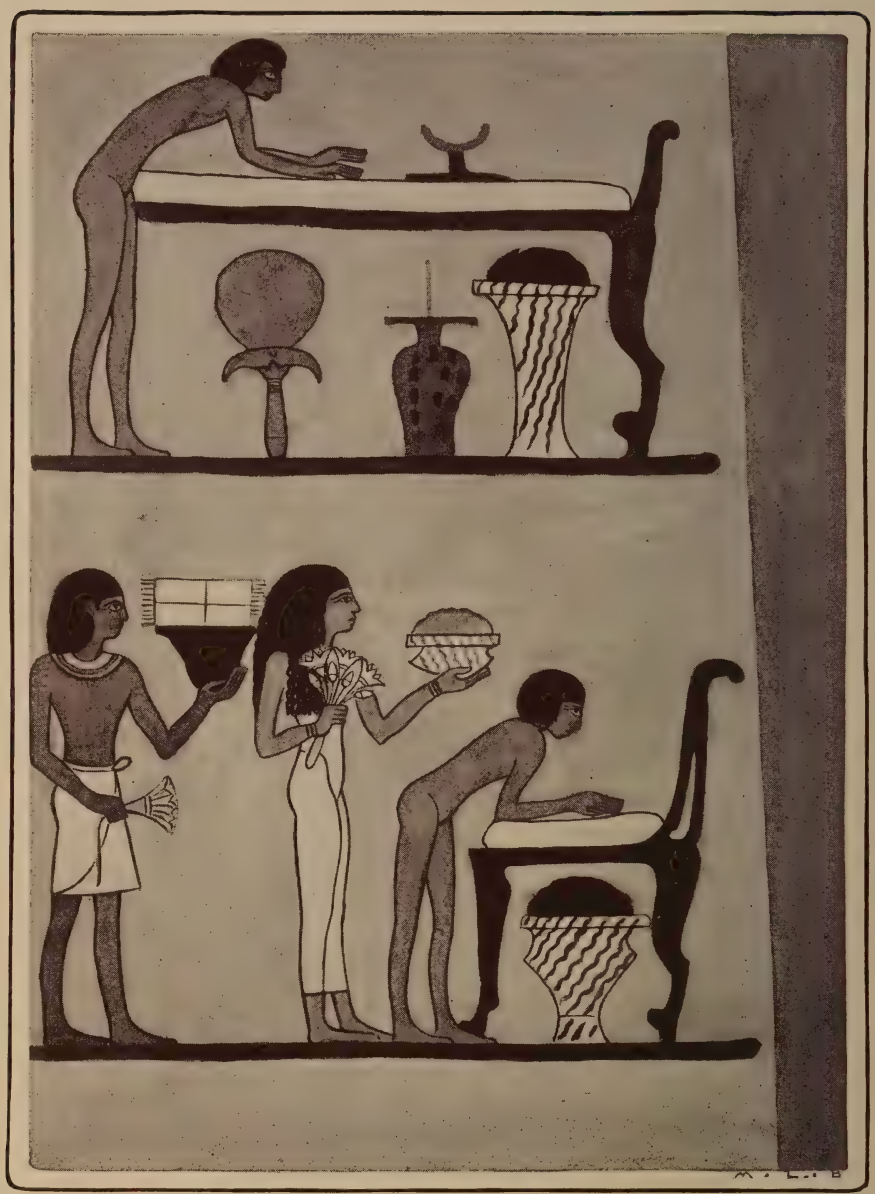
They resemble more the pyramids of the still later Aethiopian period found in the Sudan. The pyramid contained a single small chapel, with a semicircular vault and entered through a round arched door. At the inner end was a ledge or altar and from such scanty traces of the coloured decoration that remained on the walls in two or three of the chambers they appeared to have been dedicated to Hathor.

An Egyptian artist's representation of a tomb, showing the entrance in the hillside, a column of the colonnade, the stela and the crowning pyramid.

In several of the tombs the sequence of funerary scenes finishes with a representation of the arrival of the mummy at the cemetery and being endowed with new life by Anubis before being placed in the burial chamber. At one side the artist shows the slope of the mountainside, sometimes with the head of the sacred Hathor cow peeping out. Against the slope is drawn the representation of the tomb, consisting of a facade with square entrance behind a colonnade of which but one column is shown. Just outside stands the round top funerary stela. Above rises the tall pyramid with its round arched door. Now the Egyptian artist was limited in his means of

showing three dimensions. He had no idea of perspective and adhered to no scale of proportion in his architectural representations. His drawings of buildings are a curious combination of plan, section and elevation. We must conceive of a building being opened out flat so that side and front appear side by side. Considered thus his drawing of the tomb on the hillside is not without merit and is a most interesting parallel to the actual tombs now completely excavated. The only feature to be explained is the black top which he shows at the apex of his pyramid. In the debris of the Lower cemetery we found two small stone pyramidons with inscriptions, and in the Cairo Museum are quite a number of fine large specimens found in the Theban cemetery. We may now safely identify these as capping stones of the mud brick pyramids.

The next tomb, No. 283, belonged to a man called Roy or Remy, the name being spelled both ways on a small granite statue of him found in the debris of the court. He was a Prophet of Amon and his wife was Ta-mut, a singer in the temple of Amon at Karnak. The plan of the tomb was similar to that of its neighbour but clearly was of later date than either No. 282 or No. 35 to the east. The axis of the tomb was askew and the whole plan was squeezed in between the two other tombs. Its tomb passage tunnel broke into the chapel of No. 282 and its pyramid overlapped and partly destroyed that of the latter. The court was surrounded with a colonnade of round columns, of which the bases of one or more remained on three of the sides. Owing to the offering room being cut too far out on the slope of the hill where the conglomerate stratum was particularly poor, the entire chamber had to be faced with masonry like that in the court in order to strengthen it. Even with this the entire ceiling had at some time collapsed under the weight of a gigantic boulder which almost blocked up the entrance to the corridor. As in the previous tomb the outline of the entire inner casing could be traced on the pavement. I have already mentioned that the tomb tunnel broke into that of No. 282. In cutting this the masons miscalculated their distance and started the tunnel at very nearly a right angle to the corridor at a point which they thought would clear the adjoining chapel. As soon as they broke into this, they changed the direction of their new tunnel and carried it down and around the chapel, but even in doing this they left the ceiling so thin that portions below the seated figures gave way and left small openings. This tomb was reused in the reign of Ramses IX (1140 B. C.) and



A wall painting in a tomb at Thebes. Chambermaids at work with attendants.

considerably altered. The old tunnel and burial chamber were abandoned and a new tunnel was driven straight in on the main axis of the tomb. This started at the inner end of the corridor and sloped steeply down under the old statue niche which it partly destroyed, into a regular chamber from which another roughly cut room opened. At the same time a second court was added to the front of the tomb, bringing it well out over the side of the gully. This made it impossible to have the entrance on the axis and a second pylon was built on the east side of the outer court just clearing the facade of the court wall of No. 35. A sloping roadway was constructed to the new entrance over the vaulted roof of a tomb on the lower terrace (No. 284).

Tomb No. 35 was planned on a much larger scale and the workmanship was of a higher quality. Its forecourt was rectangular but much longer from east to west than it was wide, and was surrounded by a colonnade with square pillars instead of columns. The owner, Bekenkhonsu was a very important personage, First Prophet of Amon while his wife Mersagret was Chief of the Harem of Amon during the reign of Merenptah (1220 B. C.). The outer offering room was somewhat better preserved than some of the other tombs. Especially the colored decoration surrounding the door to the corridor. In Christian times this had been smeared over with brown color on which a crude design in red had been painted. Beneath this many parts of the original pattern of offering scenes to Osiris could be seen.

During the Saitic period, about 600 B. C., a new tomb was made opening from the northeast corner of the court of No. 35. The eastern end of the latter was walled off for a court and a new pylon erected. The tomb belonged to Besenmut, who possessed a variety of interesting titles. Not only was he Great Royal Scribe, but he was a lord and prince, Chancellor of Lower Egypt, Unique Friend, a true Royal Acquaintance and the Ears of the king of Lower Egypt. The plan of this tomb differed entirely from those of the Ramesside group. Here three chambers opened one from the other along the main axis extending in under the hill. The outer chamber was the most important, as it contained four offering niches each with a beautiful colored relief on the top panel. As this was the Renaissance period, the style of these imitated the Old Empire reliefs very closely and the wording of the inscriptions recalled the offering texts of the earlier age. This tomb was well within the limestone stratum and,

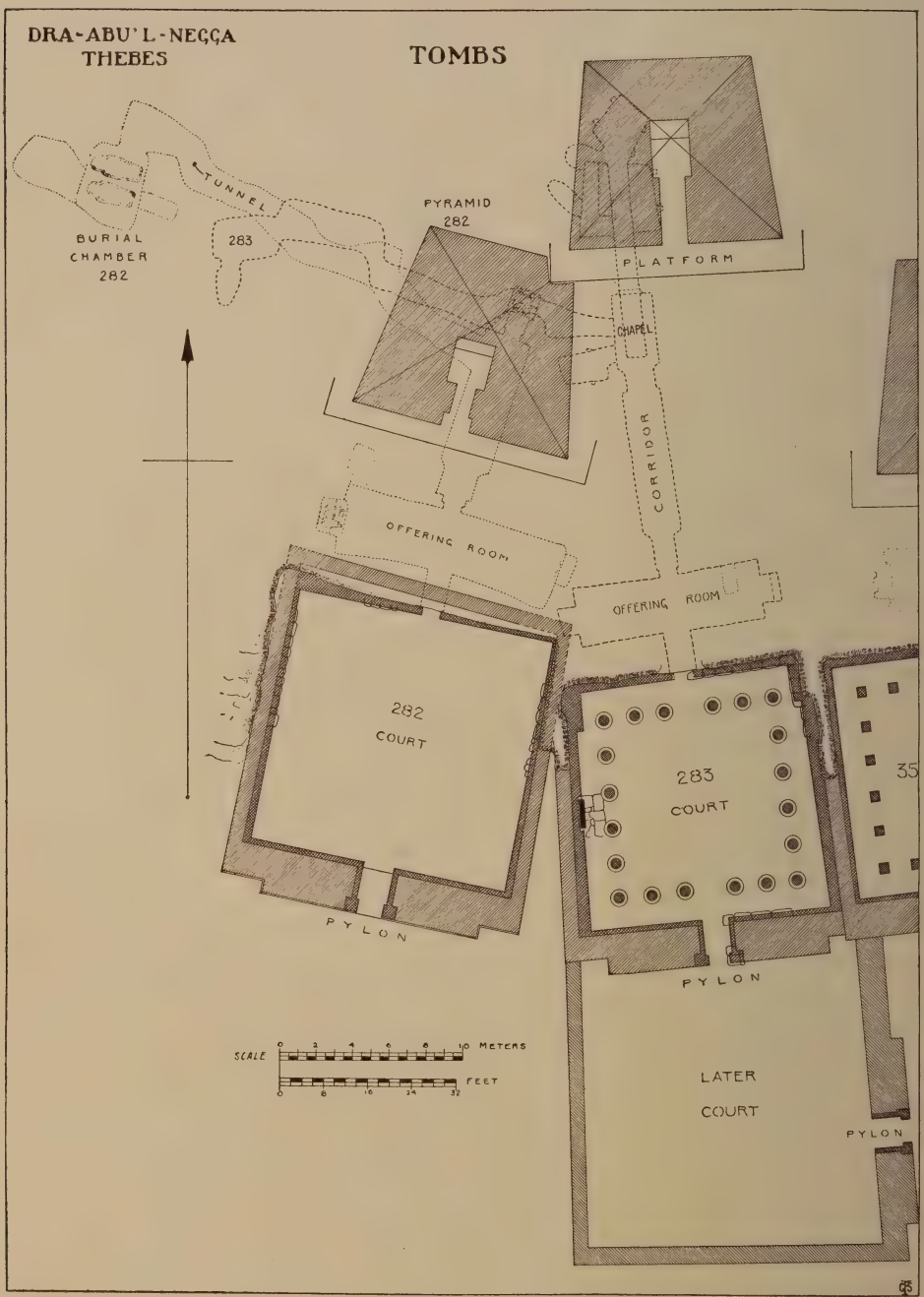
with the exception of a wide fissure diagonally across the outer chamber was well preserved. The workmanship was excellent and the rooms were regular. The walls between the niches were divided into narrow vertical columns filled with inscriptions, light blue on a yellow ground. The ceiling was slightly curved and divided down the axis by bands of inscription into six panels, the three on one side of the axis corresponding to the three on the other. Each had its own unit of decoration, palmettes, circles, and interlacing squares. The door to the second chamber had projecting jambs and cornice covered with relief and inscriptions in color. This room and the inner one were so discolored by bats and smoke that no details of the decoration could be obtained, except here and there faint indications of blue characters on a yellow field. The burial chamber was reached through a square vertical shaft in the inner room. In the middle room was a curious feature. In the centre of the east wall was a well cut door with square jambs leading to a winding rock tunnel, which twisted downwards until it broke into one of the tombs on the lower terrace. The fine entrance proves it not to be merely a robbers' tunnel.

The next tomb in the row was No. 158, situated higher up on the slope, and was built for Thenufer, a Chief Prophet of Amon during the XIXth Dynasty. It was only surpassed in size by No. 157 farther to the east, and it equaled it in the beauty of its craftsmanship, although unfortunately not so well preserved. The entrance pylon was built of solid stonework instead of brick, and had been faced with fine limestone as was also the pyramid above. The rock stratum at this point was of such very fine white limestone that the ornamentation was cut directly on it and not on a casing. Amongst the scenes was one of Thenufer playing draughts with his wife. On the jambs of the door into the main offering roof was a picture of paradise with the soul bird of Thenufer flitting about over a pool of water situated in the midst of date and fig trees. The statue niche at the eastern end of the chamber had been partly broken down by a later tomb cut, as in No. 35, from the northeast corner of the court. This had destroyed the figure of the owner leaving the seated statue of the wife and one of her little daughters standing by her side. The break had been repaired with well laid masonry but no attempt made to restore the missing figure.

The tombs on the lower terrace were all much smaller and several of them apparently of earlier date than those on the upper row.

The first at the west was No. 284 which was particularly interesting because of its reuse. Originally it consisted of a small square forecourt with entrance towards the south and a long transverse offering room with the inner chapel opening directly from it without the long corridor feature of the upper tombs. From the chapel a short tunnel wound down to the burial chamber. This tomb evidently preceded No. 35, as there had been a small window or opening in the rear wall of the court above the rock scarp which had been closed up by the filling in of the forecourt of No. 35. Later the court was divided by brick walls so as to form a T shaped offering room, with the transverse chamber at the south, all covered with barrel vaults. A new court was added at the south with its entrance at the east. The name of the original owner of this tomb was lost, as nearly the whole of the first decorated coat of stucco in the rock chambers was at some time badly burned and then largely stripped off before the new layer was put on. The second owner was one Pahomneter, a scribe and prophet of the divine offerings of all the gods in Thebes. Only one scene need be mentioned here and that is the one where Pahomneter in the judgment hall of the gods undergoes the weighing of his heart. He enters closely followed by his wife and stands in front of the great scales while Anubis observes the balance index to see whether the little figure on the deceased which here takes the place of the more usual emblem of the heart, in one pan, is outbalanced by the emblem of truth in the other pan. Thoth stands nearby recording the result while below a terrible composite beast awaits to devour the unfortunate man should he fail to pass the test. Farther on we see Pahomneter being led into the presence of Osiris, but here he is alone, his wife dropping out at this stage of the proceedings. A similar scene somewhat better drawn and preserved occurred in the tomb of Pasiur in the Lower cemetery.

The other small tombs along the lower terrace require no special description. They belonged to lesser officials such as Ani, a store keeper of the goddess Mut; Niya'y, a scribe; Pandowe, a priest of Amon and Bekenkhons, a scribe of the divine book of Khonsu, and others. In a corner of a later house built against the pylon of No. 156 were found two jars filled with Demotic papyri, legal documents of one family of the time of the Ptolemies in the third century B. C. At the extreme eastern end was the largest and most important tomb of the whole area. This was No. 157, belonging to Nebunonef,



Plan of tombs Nos. 282 and 283.

first prophet of Amon, Divine father of Amon, chief of the prophets of all the gods of Thebes, overseer of the granary and treasury and a prince and lord in the reign of Ramses II. While adhering to the general plan of the Ramesside tombs it had been much amplified. The forecourt was buried under a mass of debris and built over by two Arab houses. The offering room was 86 feet long and 20 feet wide divided down the centre with a row of twelve pillars, each representing a shrouded figure of Osiris. All the walls were covered with colored reliefs. The corridor was enlarged into a hall 43 feet long and 22 feet wide, with twelve square piers in two rows. A small chapel at the inner end contained a niche for the seated statues which in this case were made in a separate piece and probably of some finer material. The tunnel to the tomb chamber was very well cut and very elaborate, and descended in steeply sloping passages following the sides of a square. At the bottom was first a long staircase ending in a small hall with eight piers. A second short sloping corridor led to the burial chamber which was cut and dressed very carefully. The pit for the sarcophagus was sunk below the floor and around the walls were ten small loculi for offerings. This tomb had the largest pyramid, set on a high pedestal around the top of which was the usual Egyptian cornice.

The Lower cemetery presented a most discouraging appearance. Everywhere over the surface were shallow pits marking the excavations made by tomb robbers, interspersed with the heaps of debris thrown out by them. In order to determine the contents of the area, a narrow strip was laid out extending from the temple at the edge of the fields along the eastern boundary of the concession towards the Upper cemetery. Within the set limits every square foot was examined and as the work progressed the earth was thrown back on the cleared portion, after the different tombs were measured and recorded. In all some eighty-six tombs were discovered and this gives a fair indication of the crowded condition of this portion of the necropolis. Nearly all the graves were of the simplest variety, a vaulted brick superstructure, a vertical shaft in the rock with a small rough chamber for the body at the bottom. The funeral equipment was slight and consisted for the most part of the ornaments of the deceased and some jars of food and drink. Several small stelae were found in the shafts probably fallen from their positions in the superstructures. These small tombs were built around and often inside the remains of larger tombs of the Middle

Thenufer in Paradise. He kneels beside a pool of water among the date and fig trees, while his soul bird hovers above. From the wall of his tomb at Thebes.

Empire, which had been so often cleared out and reused that nothing of the original contents was left in situ. While clearing the rock forecourt of one such early tomb there came to light three other tombs of about the XXIIth dynasty, which had been cut in the rock scarp of the facade. These had only two chambers, the outer offering room and an inner chapel, but on the walls were abundant remains of fine ritualistic scenes.

Despite the fact that so much had been destroyed in former times, the excavation of the group of tombs at Thebes has proved of immense interest and importance. We now understand the arrangement and details of the tomb of a noble of the period and we can form a mental picture of the appearance of the necropolis as it must have appeared to the funeral processions as they wound across the fields on their way from the river. Against the warm red tones of the rocky cliff stood out in their white and gay colors, range upon range of massive structures, which with their lofty pylons and their colonnades resembled not so much tombs as the houses and temples of a great city. They formed a most impressive background to the sober colored mortuary temples of the Kings, which lay in a long line along the boundary between the cultivated fields and the vast desolate expanses of the cemetery, a rampart as it were between the living and their friends and relatives who had gone to reside in the city of the dead.

The colored plates accompanying this article have been prepared from full size drawings by Ahmed Effendi Kusuf, an Egyptian artist attached to the Expedition. They were copied for reproduction by Miss M. Louise Baker.

MARRIAGE AND DIVORCE IN ANCIENT EGYPT

Papyrus Documents discovered at Thebes by the Eckley B. Coxe Jr. Expedition to Egypt.

By Nathaniel Reich

THERE existed not only in our present day, but also in ancient times, many examples of confirmed bachelors.

Such an arch bachelor was Hekeyeb. He lived near Assuan in Egypt about 1880 B. C. He quite frankly confesses in a hieroglyphic inscription in a tomb near Assuan about as follows:

"I spent my childhood and youth, I lived at my ease, I enjoyed pleasant hours with women. My house was beloved better than any of my equals. I made myself a tomb, my sarcophagus was painted with things choice and beautiful." After these confessions Hekeyeb seems to have died an old bachelor.

But, as of today, bachelorhood was in the Orient almost always a shame, and therefore the regular custom was to get married, and to have children was believed a blessing everywhere as it is shown in the Bible already at the creation of mankind and by the blessing of Abraham.

But in Abraham's day they were accustomed to marry by making legal stipulations, as we can see in the law code of his contemporary Ḫammurabi. The latter says, now 4000 years ago, that if somebody should take a wife without signing an agreement with her, then this woman would be "no wife." And such has been the custom almost all the time during these four millennia in many parts of the Near East.

The Aramaic papyri of Assuan show that also in the Persian age of the fifth century B. C. the Jews were used to making contracts or stipulations about the marriage.

The Syrian-Roman Law Code shows the same custom for Old Syria.

There are two main points in such a stipulation: First, the confirmation of the marriage; second, the consequences of the marriage for both parties in respect to the wife and to the children. This was important, as in those times of polygamy, the children of an illegitimate wife did not have always the same rights as the chil-

dren of a wife who was legally married and had a contract in her hands. Quite otherwise was true in the ancient Roman law: "Consensus facit nuptias," i. e. that the simple agreement (between the two parties) makes the marriage.

For instance, in the Bible, Abraham dismisses the children of his illegitimate wives with some presents only during his lifetime, but Isaac, the son of his legitimate wife Sarah, inherits all his father's property. Later on, during the second century A. D., we see even established the legal maxim: "The wife has a marriage contract, the concubine has none," but subsequently commentators make the law less stringent. Moreover, if the wife loses the contract, she must not live with her husband till she gets it renewed.

The bridal gift or woman's compensation which is mentioned in these contracts is also a custom in the use of all these ancient peoples: the Egyptians, Babylonians, Hebrews, Persians, Arabs. It has its reason in its origin. The most highly developed peoples have this institution, as this ordinance is the remainder of a time in which the women were bought for money or other presents or services. The prince Shechem offers such a present to Jacob, the father of Dinah, in the Bible. Also Jacob serves seven years for Leah and Rachel each. It is the compensation for the change from maidenhood to wife.

The wife's servants remained her own property. A good example is Muhammad's wife Khadija.

In a later period is the bridal gift not actually paid but is only mentioned in the contract. Just previous to the age of Muhammad, for instance, the bridal gift is among the Arabs not any longer the "purchase-money" to her father but a "gift to the bride"; then, if the bride excused him from paying this money, it was not necessary to pay it.

It was also customary for the bride's father to give her a dowry in the ancient Orient. This *Šeriqtum* of the Codex Ḫammurabi, consisted of money, slaves, clothing, land or cattle. The daughter of the Jewish colonist in South Egypt of the Persian period gets household furniture, clothing and money. King Solomon receives from the Pharaoh, his father-in-law, a whole city. Sarah, Rachel and Leah obtain slaves from their parents who are their own during their married life.

In Babylonia as in Egypt, the wife was with regard to her property, quite independent of her husband. The women of the

Hebrews, Arabs and Persians had, like those of Egypt and Babylonia, almost equal rights with the men in many respects. They had also the right to make treaties without the "tutor" or "κύριος."

This little outline in regard to the marriage customs in the Near East in ancient times is necessary, if we want to get a better understanding of the marriage customs in Ancient Egypt in particular, and especially the marriage contracts of the collection of Demotic Papyri in the University Museum discovered at Thebes by the Eckley B. Coxe Expedition in 1922.

I give in translation three examples of these papyri.

I.

A. The Date, 263 B. C.

In the month Epep of the year 21 of the Pharaoh Ptolemaios, son of Ptolemaios, and of his son Ptolemaios; whilst Pelops, son of Alexander, is the priest of Alexander (the Great) and of the brother-gods; whilst Mnesistrate, the daughter of Theisarkhos, is the Bearer of the golden basket before Arsinoe the brother-loving.

B. The Parties.

The shrine-opener of (the god) Ammon of Opi in the west of Ne (by the name of) Paret son of Efow, his mother being Taret

hath declared

unto the woman Tneferteu, daughter of Useruer, her mother being Tybe:

C. The Stipulations.

1. I have made thee wife.
2. I have given to thee one silverpiece, i. e. 5 staters, i. e. 1 silverpiece again, as thy bridal gift.
3. And I will give to thee 4 measures of wheat daily, their half 2 measures of wheat, i. e. 4 measures of wheat again daily, 6 kiti, i. e. 3 staters, i. e. 6 kiti, again, for thy clothing yearly, one hin-measure of oil each month, i. e. 12 hin-measures yearly, (worth) ½ kiti, i. e. ¼ staters, i. e. ½ kiti again, each month for thy food and clothing.
4. And I will give it to thee each day, each month and each year.
5. Thou hast the right to take surety for the arrears of thy food and clothing which shall be owing from me, and I will give them to thee.
6. If I abandon thee as wife, and hate thee and love another woman than thee, I will give thee 5 silverpieces, i. e. 25 staters, i. e. 5 silverpieces again besides this 1 silverpiece, i. e. 5 staters, i. e. 1 silverpiece again which is written above, that I have given to thee as thy bridal gift, making in all six silverpieces, i. e. 30 staters, i. e. 6 silverpieces again.
7. And I will give to thee the half of all of everything that belongeth to me, and that I shall acquire from to-day onward.
8. Without any patent or any word on earth being adduced against thee.

D. The Notary.

Wrote it: (the notary) Esmin, son of Phib.

E. The Greek Docket.

1. Ετους κβ μη(νος) Λωιου ιθ	1. Year 22 month Loios 19th,
2. Αιγυπτιων δε ετους κα μη(νος) Επειφ ιβ	2. but of the Egyptians year 21 month Epep 12th
3. εν Διοσπολει τηι μεγαληι	3. in Diospolis Magna (=Thebes);
4. πεπτωκεν εις κιβωτον	4. has been thrown into the box;
5. εχρηματισεν Ασκληπιαδης	5. has been paid. Asklepiades,
6. αντιγραφευς	6. Antigrapheus.
7. τελωνης Ερμιας.	7. Tax-farmer Hermias.

The text above is written by the tax-office. It is the receipt for the presentation in the tax-office (="thrown into the [tax-] box") and for the pay, signed by the Antigrapheus who was the officer of governmental supervision for the tax-farmer Hermias who had rented the taxes from the state.

On the back are the signatures of 16 witnesses in their own handwriting.

The contract above gives the impression that the husband could get easily a divorce from his wife and send her away then, and the position of the woman seems to be without any right. But this is not the case. The woman had the same right against her husband, as we can see below. It depended simply on the kind of contract.

We notice in our above contract a man draws up a marriage contract with a woman, to protect her economically. But the equal rights of the woman's position in Ancient Egypt may be shown by the fact that there exist marriage contracts which are not rendered by the man to the woman, but by the woman to the man.

The woman could also divorce her husband and send him away. The situation in Ancient Egypt was, in fact, so that the financially stronger party rendered the financially weaker party the contract to protect him or her. However, in the most cases, the woman was the economically weaker party, of course.

In case of divorce the stronger party had to pay, to provide the financially weaker party. The papyrus collection of the University Museum contains a divorce, of which I give a translation, as follows:

II.

A. The Date, 283 B. C.

In the month Tobi of the year three of the Pharaoh Ptolemaios son of Ptolemaios.

B. The Parties.

The shrine-opener of (the god) Ammon of Opi in the west of Ne (by the name of) Amenhotep son of Pathowt, his mother being Tameti

hath declared

unto the woman Tahapi daughter of Pekrur, her mother being Tausir:

C. The Stipulations.

1. I have abandoned thee as wife, I am removed from thee in regard of the rights of a wife.
2. I have said unto thee: "Make for thyself a husband."
3. I shall not be able to stand before thee in any house to which thou shalt go to make for thyself a husband there.
4. I have no claim on earth against thee on account of a wife from to-day onward, instantly, without delay, without a blow.

D. The Notary.

Wrote it: (the notary) Twet son of Esmin.

On the back are the signatures of four witnesses.

Divorces were not rare in Ancient Egypt. The most interesting of all divorces, hitherto found, are of three brothers who lived at the beginning of the fifth century B. C. in the times of King Darius I. It seems that they "belonged to a very inconstant family."

But to understand the whole situation and the legal relations between husband and wife on the one hand, and the rights of the parents toward their children and reciprocally on the other hand, I do not know a better and nicer example than the part of the beautiful romance of the adventures of the eldest son of the famous Pharaoh Rameses II, the supposed Pharaoh of the oppression of the children of Israel. I showed already at another place 14 years ago how wonderful the composition of this masterpiece of the world's literature is. In the culminating point of the story the Ancient Egyptians themselves gave us, in telling us this tale, involuntarily the best description of all the legal situations and relations mentioned above, and throw the best possible sidelight on all the points of the questions which are interesting in respect of the marriage in all its consequences of rights and of property.

The son of Rameses II, the Sethon-priest Khamuas, was great magician. He has a romantic adventure with a beautiful priestess, Tabubue, who wants to win the prince and to cause him to marry her. However, as Khamuas is married already and has children, and as he loves his wife and children too, we can observe how the priestess attempts to remove these obstacles.

Khamuas accepts the invitation to her beautifully furnished house in Ankhtaui. She flirts coquettishly with Khamuas inflaming his love for her to a greater and greater extent. Thus Tabubue gets Khamuas at first "to make a writing (notary's contract) of maintenance and a compensation in money with regard to everything and all goods that belong to him, all." The reference here is to a valuation of property and an agreement to compensate for the dowry, etc., in case the parties separated. Then, flirting again, she increases his love and succeeds in causing him to have his children brought and to sign under the deed, because Tabubue does not want to "allow the children of Khamuas to quarrel with Tabubue's children concerning the goods" later on. But all that is not sufficient for her, and she requests him to have his children slain to avoid quarrels between Khamuas's and Tabubue's children, and he fulfills her desire.

After that Khamuas awakened, it was a dream only and he gets the news: "Go thou to Memphis (at home). Thy children, they are alive, they are standing in their due order before Pharaoh . . . ." etc.

This part of the story explains everything. We understand also the usual high number of witnesses (usually 4 or 8 or 12 or even 16 and more). The Ancient Egyptians were very fond of quarreling. On this account it was necessary carefully to keep the contracts. They often attempted to disregard a contract and went to the judge and sometimes were not afraid to lie if they could gain some profit by it. Tabubue was afraid of a similar attempt on the part of the children of the prince Khamuas for the future. Therefore she tries to sever the Gordian knot by killing his children.

Even by such dreadful conditions all these contracts are so well preserved which we find, because the ancient owners of the contracts had to keep them carefully to avoid themselves troubles in case the other party wanted to annoy them.

And now we shall fully understand the other marriage contract which differs in several paragraphs from these of the contract translated above. It is also in the collection of the University Museum. The translation runs, as follows.

III.

A. The Date, 225 B. C.

In the month Pamenhotp of the year 24 of the Pharaoh Ptolomaios son of Ptolomaios, and Arsinoe the brother-loving; whilst Alkhetos son of Yasias is the priest of Alexandros and the fraternal gods and the beneficent gods; whilst Timonasse daughter of Zoilos is the Bearer of the golden basket before Arsinoe the brother-loving.

B. The Parties.

The shrine-opener of (the god) Ammon of Opi in the west of Ne (by the name of) Pekhot son of Panefer, his mother being Tkalhib

hath declared

unto the woman Tybe daughter of Zeho, her mother being Taamun:

C. The Stipulations.

1. I have made thee wife.
2. I have given to thee *one* silverpiece, i. e. 5 staters, i. e. 1 silverpiece again, as thy bridal gift.
3. And I will give to thee 6 measures of wheat, their half (would be) 3 measures of wheat, i. e. 6 measures of wheat again daily, 2 hin-measures of oil monthly, i. e. 24 hin-measures of oil yearly, (making in all) *one* silverpiece plus 2 kiti, i. e. 6 staters, i. e. 1 silverpiece+2 kiti again, for *one* year for thy food and clothing yearly.
4. And I will give it to thee each year.
5. Thou hast the right to take surety for the arrears of thy food and clothing which shall be owing from me, and I will give them to thee.
6. Thy eldest son, my eldest son amongst the children that thou shalt bear to me is the owner of all of everything that belongs to me and that I shall acquire.
7. If I abandon thee as wife, and hate thee and love another woman than thee, I will give thee 5 silverpieces, i. e. 25 staters, i. e. 5 silverpieces again, besides this *one* silverpiece which is mentioned above, that I have given to thee as thy bridal gift, making in all six silverpieces, i. e. 30 staters, i. e. six silverpieces again.
8. And the shrine-opener of Ammon of Opi in the west of Ne (by the name of) Panefer son of Zeho, his mother being Tabe, *his father*, saith:
   "*Receive the document from the hand of Pekhot son of Panefer, my eldest son who is mentioned above, to cause him to act according to each word which is written above. My heart agreeth to it.*"
9. Without any patent or any word being adduced against thee.

D. The Notary.

Wrote it: (the notary) Herieu son of Harsiese.

On the back are the signatures of 16 witnesses.

The section 6 in this contract which was not stipulated in the first translated marriage contract but which is very usual in such contracts was the real reason that, in the above mentioned Khamuas romance, Tabubue desires from Khamuas the agreement of his children. In this paragraph the husband obliged himself that "thy and my eldest son is the owner of all of everything that belongs to me and that I shall acquire." Tabubue was, of course, afraid that the first wife had got a similar contract from the prince Khamuas. That means that firstly the eldest son is the heir and in case of his death his remaining eldest brother, and not the children of Tabubue.

The other interesting point in this contract is that the father of the bridegroom agrees solemnly to the promises of his son. The cause is here that the real owner of all the promised goods in the contract is not the bridegroom but his father. Therefore it would be possible that, in the future, the father could cause difficulties. To avoid that, the father has officially to agree in the contract "that his heart is satisfied with it."

The Ancient Egyptians were cautious.

NOTE.—The measure, *hin* used in these documents is $\frac{7}{8}$ of a pint. It is the same as the measure *hin* of the Israelites mentioned in the Bible, as for instance Numbers xv, 4.

A CONGO FETISH

or Divining Image

From the Coast Region

By H. U. Hall

THIS very interesting and important wooden statuette, of a class commonly referred to as nail fetishes for a reason which a glance at the illustration will make clear, has lately been acquired by the University Museum and is now on exhibition in the African room.

The figure, about 32 inches in height, represents a man standing with feet slightly apart in a threatening attitude with the left hand resting on the hip and the other raised as if to throw the spear, or inflict a blow with the bush knife, which it formerly grasped. The huge thumb is held vertically, the four fingers with their phalanges well differentiated are curved inwards so that the dorsal aspect of the middle two is in contact with the palmar aspect of the thumb. The latter is represented as being partly between the two fingers in question. The relations of fingers and thumb are, realistically regarded, quite impossible; but imagining the gap bounded by them to be filled with the shaft of the lance or the handle of the knife, the whole gesture is dominated and directed by the magisterial, even colossal, thumb, and the effect, mere realism apart, is imposing. This, in spite of the fact that other conditions of reality are violated in the carving of the hand. An attempt is made to represent the proportionate length of the three phalanges in each finger, but the fourth and fifth digits are considerably longer than the other two. This is no doubt an instance of a kind of compromised realism often illustrated in negro wood sculpture; the tips of the shorter fingers do in fact tend to be nearer the ground than the others when the clenched hand is held above the shoulder in the position which it is sought to represent here. The general effect is the important thing for the negro sculptor; the minuter details of the means by which it is impressed on the attention are not interesting.

The thumb of the left hand points backward on the hip. All five digits are stumpy and small out of all proportion to the other hand. Realism in art and philosophy are not the same thing. The pragmatism of the sculptor here was in conflict with artistic realism:

it reminded him that, whatever size he made that hand, it would soon be hidden with nails. And it was not the important hand in any case. The thumb nail of the right hand is carefully modelled, and the nail is represented with some care on the otherwise slighted left thumb also. No nails appear on the other fingers of either hand, though they are marked on all the toes.

On the right wrist appear two bracelets. There are no other ornaments of any kind.

In the case of the arms there is some attempt at modelling. The bent elbow of the left is marked by a ridge, of the right by a conical prominence.

From the top of the short thick column of the neck the head is tilted slightly backwards, the face looking upwards, in consequence, and full to the front.

The trunk, in front, shows no modelling apart from a simple rounding off at the sides and lower portion. On the back the shoulder blades are marked below by two curved lines meeting in the middle and bounding a field in scarcely perceptible relief. From the junction of these two lines a groove realistically follows the line of the backbone down to the commissure of the buttocks, which are carefully modelled.

The legs taper somewhat, but there is otherwise no attempt to mark off the thigh from the lower leg. They are implanted almost in the middle of wide splay feet which project behind as if to emphasize the characteristic spur heels. This hinder part appears not much narrower than the region of the toes.

Each foot rests on a separate flat base. The whole figure together with these supports is carved from a single block of wood.

The style is in all respects similar to that of the two smaller nail fetishes exhibited in the same room, even to the small protuberances representing at the ankle the internal and external malleoli. These are insignificantly small in the case of the large figure with which we are concerned here; but, if final proof were needed of the common origin of the three figures, this would afford it. The figure we are now considering is shown by its size and by the number of nails, knife blades, and other iron points which have been driven into it to be, regarded as a fetish, the most important of the three. One of these figures was published in the MUSEUM JOURNAL for March, 1920 (Vol. XI, No. 1), where also a short account is given of the manner in which some of the nail fetishes were employed.

The Bavili are the people of Loango proper, the coast district north of Kakongo, which itself is situated immediately north of the Congo mouth. These were formerly two provinces or subkingdoms of the old kingdom of Kongo, south of the river. The name employed for the inhabitants of these two northern provinces together, who seem to form a single cultural unit, by our two principal authorities on the region, Dennett and Pechuel-Loesche,[1] is Fjort, or BaFioti. Their fetish observances are all of the same pattern, so far as is known, and seem to have been derived largely from the south, when the King of Kongo was supreme in the whole region before the coming of the Portuguese in the 15th century.

It is with the head of this figure, as is usual in the case of larger wooden statuettes from this region, that most pains have been taken. The treatment of the features of the face is quite similar to that of the other examples of woodsculpture published in the JOURNAL, Vol. XIV, No. 1, in particular, Fig. 9. The top of the head is left unfinished. This is because it was formerly covered with a hardened paste, of which portions still remain, forming a cap or coiffure embodying, no doubt, in part, at least, the fetish force or power of which the figure was the vehicle, and which was known as ngilingili. This was of the most varied composition, but contained usually some poisonous elements, supposed suited to the function of the fetish as avenger or dispenser of justice.

"In figures of animals and men the ngilingili was often attached to the head, but usually in a conspicuous addition in the form of a casket, one or several, to the belly or the chest."[2]

These figures were in fact the holders or vehicles of the fetish power, whose essence was in the ngilingili, and without the addition of the latter the figure had no power.

The ngilinigili casket, as well as the fetish headdress, has been removed from the figure we are considering. The rectangular mark which the removal of the casket has left on the front of the body can still be distinguished, though it is partly concealed by the frame of the broken mirror which has taken its place.

"To the equipment especially of the fetishes which were represented in human form belong looking glasses or even bits of ordinary

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[1] R. E. Dennett, Seven Years among the Fjort, London, 1887; Notes on the Folklore of the Fjort, London, 1898; At the Back of the Black Man's Mind, London, 1906. E. Pechuel-Loesche, Volkskunde von Loango, Stuttgart, 1907.

[2] Pechuel-Loesche, p. 364.

glass which were inlaid in the force container on the belly, or in the breast, head, back, or eyeholes. Thus, through the introduction of European goods, fetishism was enriched with a new idea; fiends and ghosts, which in fact cannot endure anything shining, or miscreants, catch a glimpse of themselves in the reflecting or glittering surface of the fragment, are terrified thereat and flee."[1]

The lobes of both ears of this figure are pierced, and a small iron bell hangs from a ring which is passed through the perforation of the left ear lobe. The use of bells in connection with fetish observances was referred to in the description of two wooden bells or rattles in the MUSEUM JOURNAL, Vol. XIV, No. 1. Bundles containing fetishes of different functions and furnished with bells were carried by a woven band slung over the left shoulder of the owner. Fetish figures in human form were sometimes provided with such bundles, which presumably enhanced their powers. The attachment of bells not only to these bundles but directly to fetish figures was a common practice, and no doubt served the same purpose of giving the alarm in the presence of harmful influences with which the fetish itself could not cope. Usually the bells were attached to the neck or waist of the fetish figure; the suspension from an earring is unusual.

The custom, almost universal elsewhere, of making holes in the ear lobes for the reception of ornaments is common to both sexes in Loango. The lobe is pierced with a thorn or with a bit of the rib of a palm leaflet dried and sharpened.

The eyeballs, it will be noticed, are missing in this figure. They were certainly formed of fragments of glass or glazed pottery, which was often the case even with figures which probably had no fetish significance. From all this it will be seen that this nail fetish has been dismantled, so to speak—deprived of its original powers. A fetish master will, in fact, rarely part with such a figure as long as its powers are unimpaired.

It is not clear whether the existing remains of the mirror are still potent against bad characters in the flesh or in the spirit. The fragments may be all that is left of the original which covered the ngilingili casket. In that case there can be no doubt of their potency.

The polish of the wood of the parts of the arms that are not covered with nails, as well as the large number of the nails themselves, is evidence of the long and toilful career of this discloser and discom-

[1] Pechuel-Loesche, pp. 365–366.

fitor of evildoers. The bare parts of the arms are those by which the figure would be most easily and naturally lifted and carried. The darker sheen of the more prominent parts of the face—the middle of the forehead, the nose, and lips, and the two dark lines at the right side of the chin are to be explained in another way.

Fetishes are not worshipped; but, like their owners, they may grow tired, lazy, lax in the performance of what is required of them. They are then refreshed or incited to new efforts in various ways.

A stimulant of which the West African negro is very fond is the kola nut. "Certain parts of West Africa are rich in cola nuts; at palavers and on the march the negro is glad to make use of this fruit. The consistency of the kernel, which is about the size of a small hen's egg, is that of our chestnut. The fruit tastes very bitter; the enjoyment of it is heightened by eating at the same time with the nut small pieces of ginger."[1] What refreshes a fetish owner will refresh also his fetish. The fetish in the form of a human being, therefore, is stuffed with kola nut, or juice from the quid of kola is squirted upon it.[2] A fetish, tired or for other reasons remiss in performance, with an open mouth would be an alluring mark. The marksmanship of the master of this one was apparently rather uneven. Hence the stains on forehead, nose, and chin. Kola nuts and Congo pepper, according to Bastian, are food for fetishes.[3]

The open mouth of the figure reveals what is left of the four upper incisor teeth, and the tip of the tongue resting on the lower lip. It is difficult to account for this protrusion of the tongue. Fetishes of this kind are often represented with open mouths. The ceremonies that accompany their employment are usually characterized by a good deal of shouting and singing, and perhaps the fetish figure is intended to be regarded as joining in this. In the case of a particular kind of nail-fetish, to which this figure may belong, Bastian says: "The nails were first"—before being driven in—"drawn over the head of the accused and then placed in the mouth, filled with herbs, of the idol." This, if it does not fully account for the open mouth, shows what use was made of the aperture in some cases. But it leaves the protruded tongue unexplained. The same feature may be observed in certain masks of the western coastal region further north.

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[1] P. Guessfeldt, Zur Kenntniss der Loango-Neger, Zeitschrift für Ethnologie, VIII (1876), p. 210.

[2] Pechuel-Loesche, p. 360.

[3] A. Bastian, Zum westafrikanischen Fetischdienst, Zeitschrift für Ethnologie, VI (1874), p. 14.

A Congo Nail Fetish.

A great many African tribes file or chip their front teeth for reasons chiefly aesthetic. In some cases this fashion of personal adornment serves as a tribal mark. It is difficult to determine whether the latter is always the case in the Congo coastal region, for the accounts of travellers are not in agreement on this point. Nor are they agreed as to whether teeth, in a particular locality, are filed or chipped. Chipping must have been the usual method before the use of European files became common.

Dennett[1] attempts a classification of the results of such mutilation among the tribes between Loango and Brazzaville on the Congo. Among the groups named are the Bavili, who, he says, reduce their front teeth to four points; the Bateki "who say they are from the same mother as the Bavili," to two points; and the Bayaka and the Basanji, to two points. The wording is ambiguous. We do not know whether in the case of the reduction of the front teeth to two points, each tooth was so reduced, or whether two points were got by the treatment of certain of these teeth only; where four points are mentioned, it cannot be determined from the content whether each of the four incisors was reduced to a single point, or whether by removing parts of the incisors and canines the appearance of four points was achieved. Again he does not state whether the procedure involved both jaws or only one.

"On the Loango (Kakongo) coast," says H. H. Johnston,[2] "the men still file their upper teeth in semicircles so as to reduce the first and second incisors and the canine on each side to sharp points." This involves six teeth, giving twelve points, or seven, if the adjacent filed parts of two teeth are taken together as forming one point. A similar account illustrated by a diagram is given by Wilkes[3] from observations made on Kabinda negroes in Brazil.

H. von Jhering, in a general account[4] of this practice, describes the mutilation of the front teeth of two skulls, one from an individual among the "inland people of the Loango coast," and the other from Kabinda, both identical in this respect. "In each of the four upper incisors only one point is left in place, which, in the case of the inner or medial incisor, is the lateral prong, in that of the outer [incisor] the medial [or inner prong], so that the points of both

[1] Op. cit., p. 76.
[2] George Grenfell and the Congo, II, p. 571.
[3] U. S. Exploring Expedition, I, p. 58.
[4] Zeitschrift für Ethnologie, XIV (1882), p. 231.

teeth are contiguous." This gives two points, one on each side, each point formed by two triangular portions of adjacent incisors. Here, then, are two accounts from independent observers which affirm the existance of two distinct fashions in Kabinda. Further, Johnston, who, however, seems to confuse Loango with its southern neighbour on the right bank of the river, assigns the first mode to a wider territory than Wilkes. Taking the three statements at their face value, it would seem that the mode of chipping single teeth in the middle so as to leave each with two prongs is common to Loango, Kakongo, and Kabinda, three adjacent states immediately north of the mouth of the Congo, while the composite two point mode, if one may call it so, belongs to Kabinda and the back country of Loango, presumably the forest country of Mayombe to the east, concerning which the practice of mutilating the teeth has been both affirmed and denied.[1]

Of Loango, Falkenstein,[2] who studied the physical anthropology of these negroes on the spot, says that the four incisors of the upper jaw are treated as follows: "The two inner are filed off inwards and upwards obliquely, that is, a triangular gap with the base below is produced, while the two outer [incisors] run outwards and upwards obliquely so that in each case a smaller triangular gap arises." This seems to be the same fashion as that reported by von Jhering for Kabinda and the back country of Loango; and we have, then, the two point fashion common to Loango and Kabinda, and the seven or twelve point fashion, common to Loango, Kabinda, and Kakongo. Falkenstein reports still another fashion, apparently a modification of the former, from Loango.[3] Probably Dennett's four points for the Bavili (Loango) correspond to the two composite points of von Jhering and Falkenstein. The truth seems to be that two or three different fashions of tooth mutilation prevail indiscriminately in all three of these states, whose customs and manners are in other respects similar if not identical; indeed, the name Loango is sometimes used to cover all three divisions and sometimes still more territory.

The teeth of the fetish figure with which we are here concerned are treated according to the composite two point method, involving

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[1] C. Van Overbergh, Les Mayombe, p. 457.

[2] Zeitschrift für Ethnologie, IX (1877), p. (168).

[3] Cf. H. Lignitz, Die Künstlichen Zahnverstümmlungen in Afrika, Anthropos XIV-XV (1919–1920), Pl. I, Fig. 13.

the four upper incisors, which are the only teeth shown. This figure is certainly from Loango, in the wider application of that name, and probably from the more southerly portion of the region, i. e. from southern Loango proper or from Kakongo or Kabinda, where the practices connected with nail fetishes are most highly developed, and which for the purpose of these practices may be considered as a unit. Indeed, we are told that the range of power of this class of fetishes embraces these three provinces, but is also limited to them, so that a person against whom their penal forces are directed can avoid painful or fatal results to himself by leaving the region.[1]

The class of fetishes referred to is that which Pechuel-Loesche calls business fetishes, as distinguished from private fetishes. The latter serve individuals, families and small local groups of people, while the former are at the service of the community at large, though they are controlled by fetish priests or legitimized sorcerers who receive fees for the conduct of the fetish procedure involved in their use. Private fetishes are chiefly of the nature of amulets which may be carried or worn on the person; they serve to ward off evil or to bring good luck. Like the community fetishes their efficacy resides in the ngilingili, or powerful confection, of which they are made or which is attached to them.

Community fetishes function as instruments of healing or of the detection of crime. They are fetishes of the first rank as befits their important services to society in general. Those which are employed in seeking out offenders against the law and punishing them simultaneously are held in the highest esteem. They have various forms: hippopotami having a head at each end of the body, leopards, crocodiles, monkeys with two heads. Some are nothing but lumps of earth, blocks of wood, pots, or baskets. Community fetishes which are in the form of animals or men are usually larger than other such forms which serve as fetishes for ordinary purposes. Fetishes of the first rank in the likeness of men are from one third to a half of the height of a man. This places the University Museum's example definitely in this class. That it belongs to that division of the class which is concerned with the detection and punishment of evildoers is decisively shown by the threatening posture of the arm which formerly held a weapon.[2]

[1] Pechuel-Loesche, p. 396.
[2] Pechuel-Loesche, p. 378.

"Many anthropomorphic fetishes, if not most or all of them, are in origin certainly honorific fetishes of great sorcerers and physicians, representatives and at the same time monuments, though they are in fact made while the former are still alive."[1] According to the same authority, they are not, however, to be regarded as idols, an opinion in which Dennett[2] would probably agree, or as the recipients of any kind of worship, but simply as the vehicles of a force condensed in the ngilingili which is attached to them—a force in a sense mysterious and yet subject to the control of the nganga who knows how to concoct the ngilingili and how to set the force working by releasing it from its medium through the proper manipulation of the container or vehicle of the latter. In some manner which, probably, the nganga understands no better than we do, the vehicle, when it is a portrait of an eminent expert, enhances the power of the emanations, if we may so call them, from the ngilingili attached to it.

The explanation of the title of divinatory fetish which I have applied to the figure illustrated here will be seen from the following account of the employment of such fetishes, taken chiefly from the source already so frequently quoted.[3]

Other means of detection, including the ordeal by poison, of a crime having failed, the fetish priest is applied to, and brings the divinatory fetish to the spot, if that is known, where the offence was committed. It may have been robbery, witchcraft—all deaths not due to obvious violence are attributed to witchcraft—violation of an oath; or the influence of the fetish may be desired for the reform of a drunkard, or for compelling an obstinate debtor to pay, or a defaulting trustee to make good. The offender, if known, is brought to the place where the nganga sets up the fetish. Confession or restitution is expected as a result of the fear inspired by the activity of the fetish, which can strike the offender with death or bring on him a fatal disease. If the offender is unknown, the divining force of the fetish will seek him out and afflict him. If he is not slain by the power of the terrible diviner and judge, the illness with which he is afflicted is evidence of his guilt, and whatever further penalty is required by the law will be imposed, whether it be death or fine.

The fetish master, or nganga, brings out the fetish, which is placed, sometimes on a mat, on a smoothed area on the ground. In

[1] Pechuel-Loesche, p. 379.

[2] Cf. Cap. VIII, At the Back of the Black Man's Mind.

[3] Pechuel-Loesche, p. 378 ff., 391 ff.

the dust about it various cabalistic figures are inscribed, some or all of which may be further defined with powdered colours. The spot on which the fetish stands has been previously powdered with colour also. In the presence of the crowd which has now gathered panpipes are blown by the nganga and his assistants, antelope horns large and small are piped upon or tooted, rattles made of calabashes are shaken, drums beaten. Finally a gun is produced, loaded with gunpowder to which is added some of the ngilingili taken from the fetish figure and occasionally a small shaving taken from the figure itself. The gun is fired. Now let the offender beware. The deadly forces of the fetish are loosed. They pass through the air and alight upon the guilty. It is for certain offences only, among which are those enumerated already, that a nail is now driven in. If the offender is not known, a heated nail is used.

The driving in of the nail, heated or not, is usually said to be of the nature of an irritant intended to inflame the fetish against the criminal and to insure his unrelenting pursuit. Pechuel-Loesche seems to support this view in more than one passage. But neither he nor any other writer, so far as I know, directly quotes a native informant to this effect. The sentence in which Pechuel-Loesche expresses himself most clearly on this matter reads as follows: "The fetish inflamed against him"—the offender—"kills him, eats him up, as the people express it."[1] Here it is apparently only the expression "eats him up," i. e. destroys him, which is directly quoted as a native opinion.

In the absence of any unmistakably indigenous utterance on the subject, one can only appeal to native procedure in other similar cases where nails are driven into figures. Gilmont[2] speaks of "the great fetish of diseases in the case of which the patient plants a nail in the part of its body corresponding to the affected part of his own." It is not easy to see why in such a case as this one should wish to inflame the fetish. Rather it would seem to be a question of releasing the force imprisoned in the fetish by making a hole through which the, in this case healing, virtue can escape to become operative on the part of the patient's body indicated by the nail driven into the fetish figure.

Although the account quoted from Pechuel-Loesche of the employment of nail fetishes in the detection and punishment of crime seems to imply that the discharge of the gun is the means of

[1] Pechuel-Loesche, p. 393.

[2] Quoted by Van Overbergh, Les Mayombe, p. 292.

releasing the pent up forces of the fetish, which is by virtue of this power both judge and executioner, it seems doubtful whether this is really so. It is perhaps rather a means of reenforcing the power released as well as, or perhaps chiefly, a part of the noisy demonstration with which the whole procedure is accompanied, the purpose of which, as the same writer informs us, is to make an impression on the spectators, including the offender. At any rate we are not told that a gun is discharged when oaths are taken and the fetish is called upon to witness them, in such cases as that of a drunkard swearing to reform, or of some solemn engagement being entered into. "Each party strikes a blow or two on one and the same nail and at the same time adjures the fetish in a loud voice to eat him up (vernacular expression) if he breaks his vow. In order to bind themselves with all due ceremony and to make it easier for the forces to discover the person who may become guilty, those who take the oath are accustomed to pass the nail from hand to hand, press it to breast and forehead, or bite it or spit upon it. Sometimes the iron is driven into the fetish with hairs adhering to it."[1]

There does not seem to be here any immediate occasion for inflaming the fetish, since whatever injury is to be inflicted is necessarily postponed to an indefinite future. Rather is it a matter of providing an exit for the forces enclosed in the fetish figure and a guide to direct them in following and identifying the malefactor in posse.

The analogy suggested in a former article[2] in the MUSEUM JOURNAL with the sticking of pins into wax figures of persons whom it is desired to injure in European (or Asiatic) practice of sorcery is probably also false. This would seem to be sufficiently proved by the case of the healing fetish mentioned by Gilmont. It is the obvious explanation of these curious figures which would at once suggest itself to a European traveller; so obvious that he might not think of asking for a native explanation.

Any small pointed object made of iron or steel may be driven into the figures, a fact which will be at once apparent from an examination of the illustration here. If such things as screws or gimlets are used, they must be driven not screwed in. The productions of native blacksmiths are said to be preferred, although wire nails and tenpenny nails of European manufacture are quite evidently not despised. There are dark marks about some of the nail holes which may be the result of a very slight scorching rather than charring of the wood due to the driving in of heated nails.

[1] Pechuel-Loesche, p. 394.

[2] Vol. XI, No. 1, p. 35.

COINS FROM NIPPUR

ANCIENT coins have the double charm of history and beauty. A special interest is attached to the present coins, which have all been recovered in the ruins of Nippur, from 1891 to 1895, generally from the debris on the slopes of Mount X. There are 57 coins, including 6 silver coins, one alloy of lead and silver? and 50 copper coins. They cover about one thousand years from circa 400 B. C. to 744 A. D. The best specimens, as far as legible, have been identified with the help of the various and excellent catalogues of the British Museum. They are as follows:

1 Coin of Athens, about B. C. 400. Alloy of silver and lead?
1 Coin of Tarsus, about B. C. 300. Silver.
2 Coins of Seleucus I, B. C. 311–281. Copper.
1 Coin of Demetrius I, B. C. 161–157. Copper.
1 Coin of Alexander Bala, B. C. 152–144. Copper.
1 Coin of the Parthian King Gotarzes, A. D. 40–51. Silver.
1 Coin of the Parthian King Volages II, A. D. 111–112. Copper.
4 Coins of the Parthian King Osroes, A. D. 116–128. Copper.
1 Coin of the Sassanian King Varahan IV, A. D. 386–397. Silver.
1 Mohammedan Coin of the ʿOmayyades dated A. H. 90 = A. D. 709. Silver.
1 Mohammedan Coin of the ʿOmayyades dated A. H. 127 = A. D. 744. Silver.

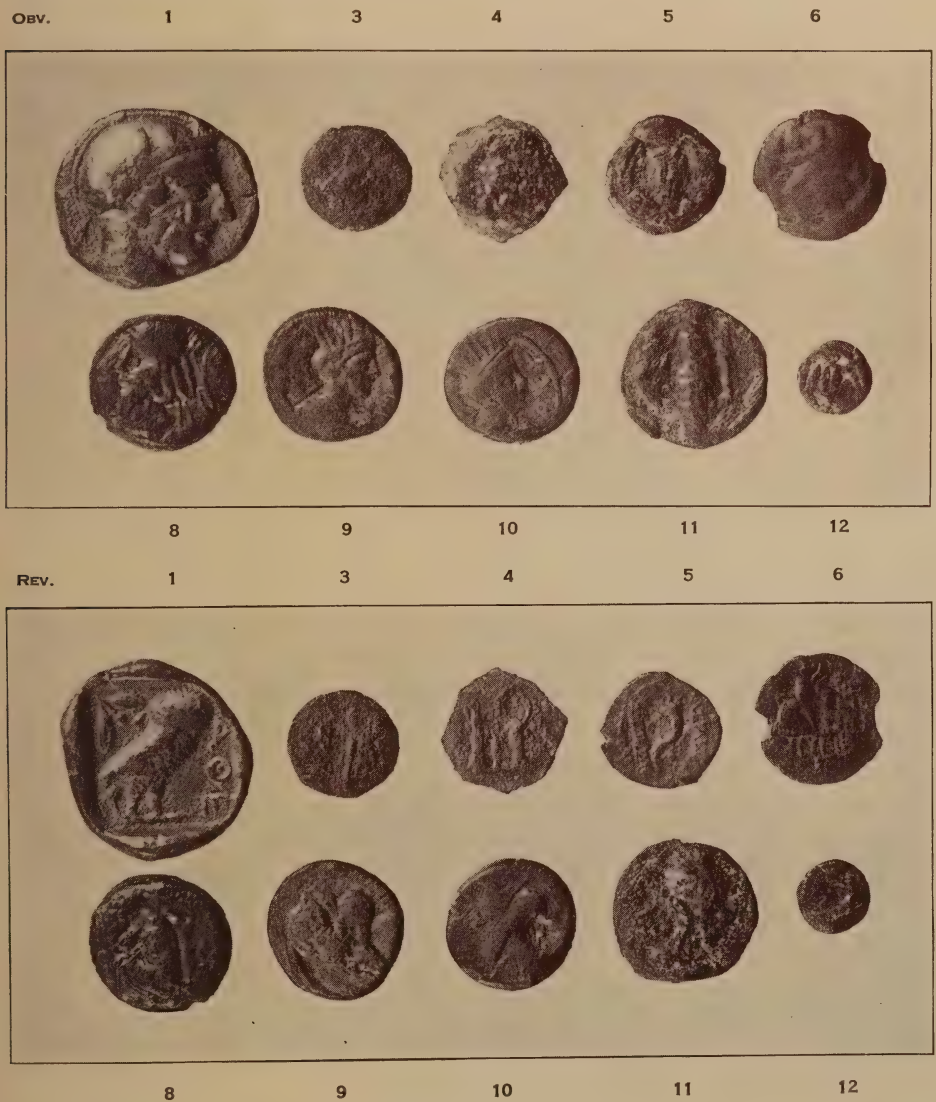
A short description of the coins will help to understand their devices and to realize their historical value.

1. Coin of Athens, about B. C. 400. *Obv.* Head of Athena with helmet, and laurel crown. *Rev.* AΘE, the owl and the olive branch in an incuse square. Impure silver. Size .9 to 1. —— CBS. 4497.

Even before B. C. 400, the Athenian coinage had a large circulation in Greece, Europe and far East, and was renowned for its pure metal and accurate weight. The present alloy may be an early counterfeit.

2. Coin of Tarsus, about B. C. 300. *Obv.* Zeus of Tarsus on a throne. He holds a scepter, his left rests on an angle of his throne.

There are two lines of five dots between the legs of his seat, and a circle of dots around the device. *Rev.* A passing lion, above which is the anchor, the symbol of the Seleucid kings and below in exergue a crab. Circle of dots around.



Coins from Nippur.

Tarsus the head of the Cilician gates from Asia Minor over the mountains toward Antioch and the Euphrates was before the expedition of Alexander under the control of Mazaeus Satrap of Cilicia. After the arrival of Alexander his name is still found inscribed in Aramaic characters, on a silver coin of the Attic standard and of the

same type as the present coin. Zeus on the Mazaeus coin has also his name BAAL TARS inscribed in the Aramaic character. Zeus Tarseios may have been the model of the reverse type on many of Alexander's Cicilian coins. After Alexander, the Aramaic inscription is replaced by the Seleucid anchor, certainly taken from the device on the signet of Seleucus I Nicator, B. C. 311–281.

The lion is the symbol of Astarte, Atergatis the great goddess of Syria, to whom Seleucus built a new temple in Hieropolis, the old Bambyce, a sacred city, northeast of Aleppo toward the Euphrates. Zeus is the Greek rendering of the god Baal worshiped in Tarsus, or in Hieropolis under the name of Baal Kevan. Hieropolis was a mint of the Seleucid kings, and coins with lion and bull may have been struck there. But the crab in exergue on our coin, as well as on the coin of Mazaeus, calls for a city on the seashore like Tarsus, or is perhaps the counter mark of a Greek artist originating from Cos, which had a crab on its coins. Silver. Size .85 to .95.———CBS. 14551.

3. Copper Coin of Seleucus I, B. C. 311–281. *Obv.* Head of Apollo facing with laurel and long hair. *Rev.* ΣΕΛΕΥΚΟΥ ΒΑΣΙΛΕΩΣ. Seleucus facing, armed, holds his spear in the right. To the right Nike places a wreath on his head. Size .6—— CBS. 14552.

Many coins of the Seleucid kings are found in Nippur. One century earlier the large silver coins of Sidon, Tyre, Aradus began to circulate along the caravan routes as far as the banks of the Euphrates and the Tigris. The coin of Tarsus in Nippur shows the trade active along the same lines. But soon after Alexander autonomous states ceased to issue money, and only a few independent cities would strike coins in his name.

4. Copper Coin of Seleucus I, B. C. 311–281. *Obv.* Head of Apollo with laurel and long hair. *Rev.* ΒΑΣΙΛΕΩΣ ΣΕΛΕΥΚΟΥ. Tripod supporting a lebes with round cover. Size .55. —— CBS. 14553.

5. Copper Coin of Demetrius I, B. C. 161–157. *Obv.* Head of Apollo facing with laurel and long hair. *Rev.* ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ. Cornucopiæ. Serrated edge. Size .6 —— CBS. 14554.

6. Copper coin. Time of Alexander Bala? B. C. 152–144. *Obv.* Head of Alexander on the right, with radiating diadem. *Rev.* Perhaps Zeus seated on a throne and holding Nike in the

extended right hand, and a scepter in the left. Incomplete inscription. . . . ΛΕΥΚΕΛΙ . . . 1 . . . . . ΤΙΤΙΕΙ. Size .65. —— CBS. 14555.

7. Silver Tetradrachm of the Parthian King Gotarzes, A. D. 40/41–51. *Obv.* Bust of Gotarzes I, with long pointed beard and hair in formal rows. He wears a diadem, a spiral necklace and a cuirass. *Rev.* The complete inscription reads: ΒΑCΙΛΕΩC ΒΑCΙΛΕΩΝ ΑΡCΑΚΟΥ ΕΥΕΡΓΕΤΟΥ ΔΙΚΑΙΟΥ ΕΠΙΦΑΝΟΥC ΦΙΛΕΛΛΗΝΟC. Gotarzes seated on his throne receives the diadem offered by the Tyche of the city who stands before him. The king wears the loose trousers and the tunic of the Persians. Tyche wears the chiton and peplos and holds the diadem in the right and a cornucopia in the left. In the field ΒΞΥ are an indication of the month off the flan, 362 = A. D. 50/51. Size 1.1. —— CBS. 14556.

8. Copper Coin of the Parthian King Volages II. Date 423 = A. D. 111/112. *Obv.* Bust of the king, with a long pointed beard. He wears a helmet with flaps, a diadem, a necklace and a cuirass. The helmet has spiked appendages and hooked device. Behind his head is the letter A. *Rev.* The Tyche of the city, wearing chiton, peplos and turreted headdress is seated facing left on a short column, her right hand is raised to her head. In front of her ΓΚΥ. Size .7. —— CBS. 14557.

9. Copper coin of the Parthian King Osroes. Date 428 = A. D. 116/117. *Obv.* Bust of Osroes with pointed beard, hair arranged in bunches, diadem, earring, spiral necklace and cuirass. There is a border of dots. *Rev.* Bust of the Tyche of the city with turreted headdress and looking to the right. In front of her the date. ΗΚΥ. Size .7. —— CBS. 14558.

10. Copper Coin of the Parthian King Osroes. Date 429 = A. D. 117/118. Same type as above. *Rev.* in front of Tyche the date ΘΚΥ, and a border of dots. Size .7. —— CBS. 14559.

11. Copper Coin of the Parthian King Osroes. Date 439 = A. D. 127/128. *Obv.* Bust of Osroes as above. *Rev.* Tyche of the city wearing turreted headdress, chiton and peplos, stands facing to the right. She holds in the right a palm branch tied with a fillet, and in the left a scepter. Behind her the date ΘΛΥ. Size .75. —— CBS. 14559.

12. Copper Coin of the Parthian King Osroes, or Pacorus II? Date A. D. 106/107? *Obv.* Bust of the king facing to the left, with pointed beard and hair in formal rows. Part of the diadem, ear-

ring, necklace and border of dots are visible. *Rev.* Head of Tyche of city. Size .35. This smallest of all coins is the obolos or mite. —— CBS. 14560.

These Parthian coins from A. D. 50 to A. D. 128 represent the time of the occupation of Nippur by the Parthian troops and fix the date of the construction of the huge Parthian fortress on the top of the old stage tower.

13. Thin silver coin of the Sassanian king Varahran IV, A. D. 386–397. *Obv.* Head of the king with the elegant tiara officially recognized as his device. It is adorned with wings and the projecting front part terminates in the head of a bird. The king has his hair tied in bunches, earrings and a necklace with a pendant. The legend in front reads in the Pehlvi characters: Mazdísan Bagí Valahlán Markán (Marká): The Ormazd worshiper divine Varahran King of Kings. *Rev.* A Persian fire altar with an Ormazd head issuing from the flames. Two supporters coarsely defined face the altar with swords at guard. They may be a duplicate representation of the king with his conventional crown. The bust issuing from the flames is not the genius or *feruar* of the king but the divinity existing amidst flames.

Above the altar on the left of the fire were inscribed the initial letters *As* of the mint, probably Dárábgerd, famous as the first capital of Ardashir Pápakán the founder of the Sassanian Dynasty of Persia, A. D. 226 and metropolis of an important district in the South of Fars. The shaft of the altar has not the usual inscription *Rásti*, Truth, but is divided in two columns by a deep line. There is a circle of dots around *Obv.* and *Rev.* Size .95. —— CBS. 14561.

14. Thin silver Mohammedan coin, dated A. H. 90=A. D. 709. *Obv.* The field and margin are occupied by sacred texts from the Korán: *lâ ilâha ill Allâh*, there is no God but Allah, etc.; *bism'illah*, in the name of God. The margin has moreover a record of the date and the place of mintage.

واسط سنه سبعين

"At Wasiṭ in the year 90." The margin is inclosed by a triple serrate circle outside of which are 5 annulets and finally a single serrate circle. *Rev.* Field and margin are occupied by texts from the Korán. The margin has the famous profession of faith *Muhammedar rasûlu'llâh*: Mohammed is the Prophet of God. There is a

serrate circle around the field, a second around the margin and a third inclosing 5 annulets outside the margin.

This is a very early Mohammedan coin. Pure Mohammedan money, with no names of priests or kings, and only sacred texts from the Korán, in the Kufic writing of pure Arab origin, was first coined 14 years before. The revision took place under the reign and by order of Abd-el-Melik the fifth 'Omayyade Khalif, A. H. 76=A. D. 695. Previously the Arabs used the old Sassanian coins with a fire worship device to which were added the names of the companions of the Prophet or of their associates and successors, and also the year

Coins from Nippur.

of issue and the place of mintage. The writing was still a late form of Pehlvi. But in A. H. 60 the monarchy became hereditary under the Khalif Mo'áwiyeh, and henceforth the name of the Khalif replaces on the coins the name of the various governors. Next, religious contest brought about a rupture between the Khalif and the Byzantine Emperor whose mints had hitherto supplied the entire gold currency of the Syro-Arab dependencies. In A. D. 694=A. H. 75 a thorough reform was ordered by Abd-el-Melik, and new devices and superscriptions in the sacred Arab Kufic characters were supplied by Hejáj ben Yusaf to satisfy the scruples of the Orthodox Mohamme-

dans. An important innovation in the dating of the new coins was the adoption of a single new cycle, the Hegira.

The place of mintage, Wasiṭ, is a city 60 miles east from Nippur, as the crow flies, on a large canal, the Shatt-el-Wasiṭ derived from the Tigris at Kut-el-Amara. It was then an important Arab city previous to the foundation of Baghdad 60 years later by the Khalif El-Mansûr the second Abbasside, A. D. 764 to 767.

The present coin was struck under the reign of the Khalif El-Welíd the sixth 'Omayyade and successor of Abd-el-Melik. The silver coins of the 'Omayyades have no reference to the Khalif during whose rule they were struck, and the advent of a new Khalif to the throne caused no alteration in the coinage. And their gold coins, presumably struck at Damascus, are even without any name of the mint. The only exception to this rule is to be seen in the three varieties of annulets arrangements on the silver coins struck at Wasiṭ in the year A. H. 126, a year in which three Kalifs successively occupied the throne, as will be noted with the next coin. —— Size .95. —— CBS. 14562.

15. Mohammedan silver coin of the 'Omayyade type as above, but dated A. H. 127 = A. D. 744, under the Khalif Merwán II, the last of the 'Omayyades.

بواسط سنه سبع و عشرين و مئه

"At Wasiṭ in the year 127." The only difference with the usual coins is the presence on the obverse round the margin of 7 annulets instead of 5 or 6. It is yet a doubtful question whether the change of annulets on the Wasiṭ coinage coincide with the change of Khalifs. But it is a curious coincidence that the three varieties of arrangements should be found on the Wasiṭ coins of the year A. H. 126 when the three last 'Omayyades, Yezîd III, Ibrahim and Merwán II successively occupied the throne. Our coin dated on A. H. 127 belongs certainly to the reign of Merwán. In A. D. 750 this Khalif, the last of his dynasty, fled to Egypt where he was put to death. The 'Omayyades were exterminated with the exception of 'Abd er-Rahmân, who fled to Spain and founded an independent Khalifate at Cordova. Size 1. —— CBS. 14563.

LEON LEGRAIN.

TWO DOOR SOCKETS OF THE KINGS OF UR

MANY temples, walls, stage towers and shrines of Babylonia were restored by order of the kings of Ur, B. C. 2304–2187. Their names and inscriptions are found on many bricks, clay nails, door sockets and stone tablets. Two door sockets from Nippur in gray diorite and black basalt have preserved good inscriptions of Dungi, the second king, and of Gimil Sin, the fourth king, of the third Ur dynasty. Their main interest is derived from their

Door Socket of Dungi.

dedication to a certain god, their mention of a shrine or of a construction by its proper name descriptive of its qualities or attributions.

Dungi's door socket, dedicated to Ninni-Ishtar, marked the building and restoration of the shrine of the tower of Nippur named *É-dur-an-ki*, the tower connecting heaven and earth. Gimil Sin's door socket is dedicated to the god Shara, the beloved son on Ninni-Ishtar, and whom the king calls his father. His shrine has the common name of *É-shaggi-padda*, the elect of the heart.

Dungi's door socket:

dninni	To Ninni
nin-a-ni	his lady,
dun-gi	Dungi
nitah-kal-ga	the powerful hero,
lugal-urí kima	king of Ur,
lugal ki-en-gi ki-uri-ge	king of Sumer and Akkad.
é dur-an-ki ka-ni	has built
mu-na-dū	her house of *Duranki;*
ki-bi mu-na-gí	has restored it to its place;
nam-ti(l)-la-ni šú	for his life
a-mu-na-ru	he has dedicated it to her.

Hammurabi three centuries later mentions in the prologue of the Code how he took good care of Nippur and of *Duranki*, the temple of Enlil was also called *É-kur*, the mount house. Duranki is the stage tower rising its ponderous mass over the walls of the inner court. The name means the construction connecting heaven and earth: *rikis shamê u irṣiti.* Nippur like Babylon could boast of her tower reaching unto heaven, which answers to the role played in Sumerian cosmology by the mountains as support of the sky.

The name of Dungi is written without the star, the divine prefix which the king adopted in the later part of his reign when he was considered and worshiped as a god. The restoration of the shrine and stage tower of Nippur must have taken place in the first years of the reign about B. C. 2275.

Gimil-Sin's door socket.

d šara	To Shara,
nir-gál-an-na	the hero of Anu,
dumu ki-ág	the beloved son
d ninni	of Ninni,
ad-da-ni-ir	his father,
dGimil lSin	Gimil-Sin
lugal kal-ga	the powerful king,
lugal urí kima	king of Ur,
lugal an-ub-da-tab-tab-ba-ge	king of the four regions of the world,
é ša(g)-gí pa(d)-da	the *é-shaggi-padda*,
é ki-ág-gà-ni	his beloved shrine,
nam-ti(l)-la-ni šú	for his life,
mu-na-[dū]	he has built to him.

Shara, a male deity, was with the goddess Nidaba, goddess of wheat and barley, one of the patron gods of the city of Umma, 50

miles south of Nippur. His relation to great Ninni-Ishtar is interesting. Umma, and her old rival Lagash had their days of splendor in earlier times. Ningirsu of Lagash is also a minor god, a servant of the great Enlil of Nippur. Such minor gods were anyhow invoked as personal gods and patrons of kings and patesi, and interceded for them before the dii majores. There are several instances of such a patronage, and scenes of introduction are common on seals and bas reliefs.

LEON LEGRAIN.

Door Socket of Gimil-Sin.

THE WESTMINSTER TILES

In the last number of the JOURNAL in describing the floor tiles in the Chapter House of Westminster Abbey I stated that these tiles had never been published.

My attention has since been called to a paper by Rev. P. B. Clayton, M.A., entitled, "The Inlaid Tiles of Westminster Abbey," read before the Royal Archaeological Institute of Great Britain and Ireland on October 4th, 1910, and published in *The Archaeological Journal*, Vol. LXIX, page 36.

This article contains a description of the tiles, an historical discussion and a plan of the floor. It is accompanied also by drawings of seven of the eighteen conventional tiles and drawings of three out of the eight picture tiles.

G. B. GORDON.

MUSEUM NOTES

PURCHASES.

A Greek marble head representing Ariadne, III or IV Century B. C., bought through the generosity of Mr. Eldridge R. Johnson.

Three mediaeval Hindu sculptures.
Four fragments of fresco from Turfan.
Two Graeco Buddhist heads.
A Chinese wooden statue of Kwanyin.
A Chinese pottery horse of the T'ang Dynasty.
A Chinese pottery camel of the T'ang Dynasty.
Sixty-six African wood carvings.
Three Indian blankets.
One Indian saddle.

APPOINTMENTS.

Mr. H. U. Hall has been promoted from Assistant Curator to Curator of the Section of General Ethnology. He has also been appointed to the position of Acting Curator of the American Section owing to the continued illness of Dr. Farabee.

Mr. Irwin L. Gordon has been appointed to the post of Publicity Director for the University Museum.

The University of Pennsylvania conferred the degree of Doctor of Science upon Clarence S. Fisher, Curator of the Egyptian Section of the Museum, at the University Day exercises at the Academy of Music on Washington's Birthday.

LECTURES FOR WINTER OF 1924.

Members' Course.

January 5. Out in the Blue. From Cairo to Ispahan. Dr. George Byron Gordon.
January 12. Raphael Sanzio. Mr. Charles Theodore Carruth.
January 19. The Heart of Asia and the Roof of the World. Brig. General Sir Percy Sykes.

January 26. By Caravan through the Garden of Allah. Mr. Horace D. Ashton.
February 2. Beisan—Exploration and Discovery in the Holy Land. Dr. George Byron Gordon.
February 9. The Secret of the Sahara. Mrs. Rosita Forbes.
February 16. To Lhasa in Disguise. Dr. Wm. Montgomery McGovern.
February 23. The India of Kipling and Tagore. Mr. Dhan Gopal Mukerji.
March 1. Jungle Life in India. Col. J. C. Faunthorpe.
March 8. Among the Islands of the South Seas. Prof. Henry E. Crampton.
March 15. A Journey to the Wonderland of Ancient China. Prof. Paul Pelliot.
March 22. Mycenae, the Wonder City of Ancient Greece. Mr. A. J. B. Wace.
March 29. Across Sumatra. Dr. Fay Cooper Cole.

Story Hour for Children of Members.

January 5. Eskimo—The Snow House. An Eskimo Doll. The Magic Sled.
January 12. Africa—The Magic Drum. The Tortoise in a Race. Where the Animals Found Food.
January 19. Japan—The Burning of the Rice Fields. The Elves and the Envious Neighbor. Nedzumi.
January 26. Holland—Dutch Stories.
February 2. Scandinavia—The Quest of the Hammer. The Golden Lantern, the Golden Goat and the Golden Cloak.
February 9. North America—How the Turkey Got His Gobble—Gobble—Gobble. The Great Red Chief.
February 16. Egypt—The Ancient Tomb. The Boats of the Nile.
February 23. Rome—The Story of Pompeii. Romulus and Remus.
March 1. Greece—Niobe. Orpheus and Eurydice. Phaethon.
March 8. Central America—The Story of Lipoo the Moon. Wee Rabbit Sells a Bag of Maize. The Boy and the Sword.
March 15. China—The Palace of Ming Huang. Su Sung. Elves of the Forest.

March 22. Philippine Islands—The Origin of Tilin the Rice Bird. The Obstinate Carabao.
March 29. South America—The Anaconda's House. The Log in the Stream. The Poor Little Fish.
April 5. Japan—The Bamboo Cutter's Daughter. The Cloth of Endless Length. Prince Rice-Ear-Ruddy-Plenty and Prince Fire-Subside.
April 12. Eskimo—The Ice Which Did Not Melt. The Boy in the Moon.
April 19. India—The Rogue and the Simpleton. The Camel and the Pig.
April 26. North America—How the Indians Got Maple Sugar. The Mightiest Canoe. Where the Mosquitoes Came from.

School Lectures.

Elementary Schools.

January 16. Alaska, the Country and Its People.
January 23. Egypt.
January 30. India, Its People and How They Live.
February 6. Life in the South Sea Islands.
February 13. What the Cave Men Did 50,000 Years Ago.
February 20. Indians of the Amazon.
February 27. Central America and Panama.
March 5. The Story of Ancient Babylonia and Assyria.
March 12. China and the Chinese.
March 19. Palestine.
March 26. Indians of Our Great Southwest.
April 2. Japan and Its People.
April 9. Mohammedanism and the Crusades.
April 23. The Philippines.
April 30. The Greeks as Builders and Artists.
May 7. Life in Ancient Rome.
May 14. Italy and the Italians.

High Schools.

March 18. Prehistoric Man.
March 25. Babylonian Origins of Civilization.

April 1. Egypt, Ancient and Modern.
April 8. Palestine and the Mohammedans.
April 22. Appreciation of Art.
April 29. Prehistoric Crete.
May 6. The Importance of Greece.
May 13. Roman Life.

NEW MEMBERS.

The following members have been elected.

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FORM OF BEQUEST

I give and bequeath to the Trustees of the University of Pennsylvania the sum of.....dollars, in trust for the uses of the University Museum. (Here, if desired, specify in detail the purposes.)

SPECIAL NOTICE

In order that The University Museum may give appropriate recognition to the substantial gifts which have been already received, and which will hereafter be donated or bequeathed for the development of its resources and the extension of its usefulness, the Board of Managers have adopted the following classification for contributors and members, and have resolved that the names of the donors of aggregate sums of $25,000 and upwards, in cash, securities, or property shall be inscribed upon a suitable tablet or tablets, to be properly displayed in the Museum.

There shall be five classes of Contributors designated as follows:

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Associate Benefactors,	" " " " " " "	25,000
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Associate Patrons,	" " " " " " "	5,000
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There shall be four classes of Members designated as follows:

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Contributors and Members are entitled to the following privileges: admission to the Museum at all reasonable times; invitations to receptions given by the Board of Managers at the Museum; invitations and reserved seats for lectures; the MUSEUM JOURNAL; copies of all guides and handbooks published by the Museum and free use of the Library.

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Main Door to Throne Room of Merenptah.

THE
MUSEUM JOURNAL

VOL. XV PHILADELPHIA, JUNE, 1924 No. 2

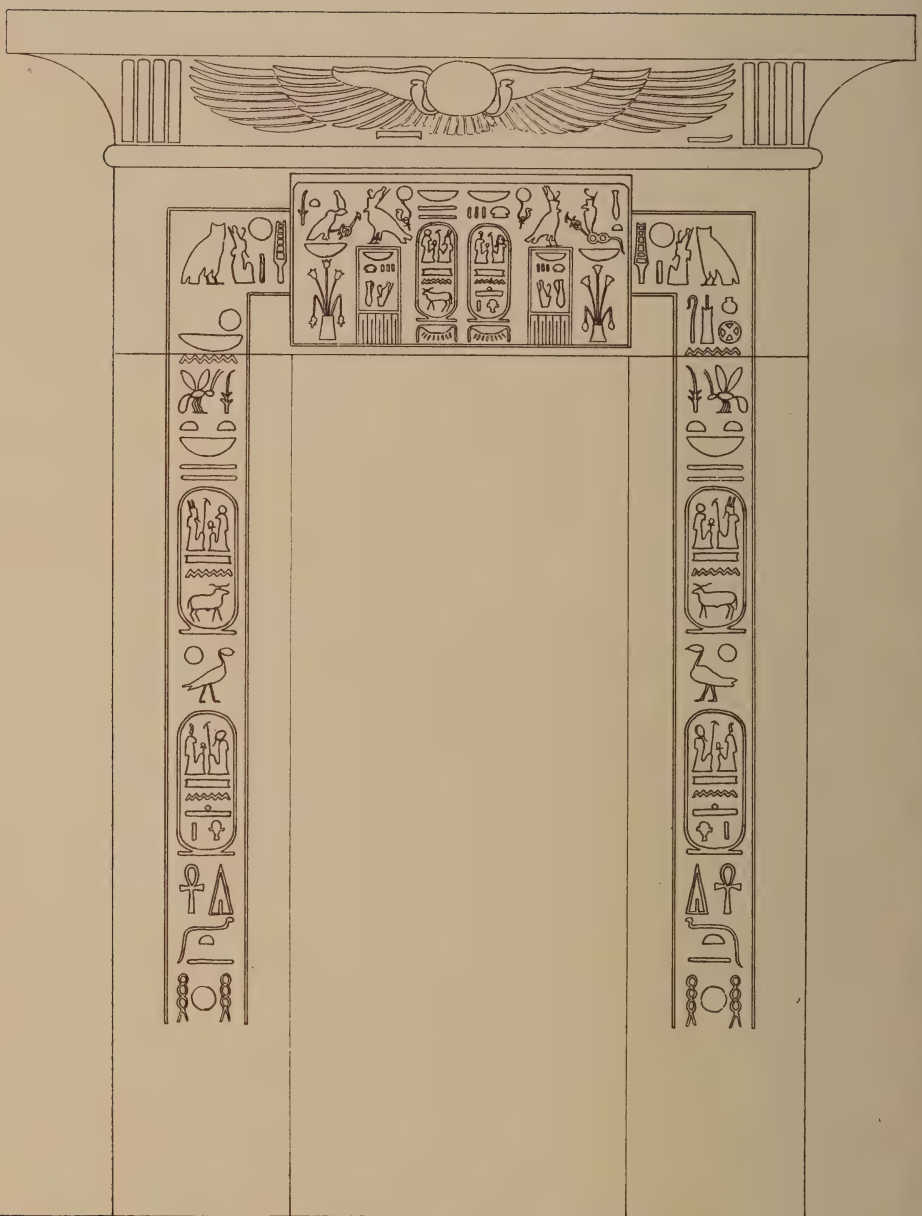
MERENPTAH'S THRONE ROOM

BY CLARENCE S. FISHER

BRIEF accounts of the excavation and a reconstruction of the throne room of the Merenptah palace at Memphis have already appeared in the pages of the JOURNAL (Dec., 1917, and Mar., 1921). In view however of the preparation of a large scale model of this gorgeous chamber which will form part of the exhibit in the new Egyptian wing of the Museum, it seems well at this time to give a more detailed account of the decoration.

The chamber had been ruined when the palace was burned shortly after the death of Merenptah, and the heap of smoldering woodwork from the ceiling and doors had baked the greater part of the floor a bright red and wholly obliterated the pattern on its delicate covering. Since then the gradual rising of the bed of the Nile for many years has caused the palace level to be more and more submerged during the annual Nile flood. When excavated the floor consisted of soft sticky mud, on which only the traces of the bricks owing to the lighter lines of the joints, could be detected. The floor had been first paved with one course of large sundried bricks resting on a thick bed of sand. The surface had then been levelled up with a thin coat of mud mixed with cut straw. Over this was a smooth coat of white stucco giving a finished surface for the artist's drawings. The decoration of the raised stone dais supplied the motive for the decorative scheme as, from one small fragment in one of the adjoining chambers, it was certain that borders of lines and dots like those on the dais were used on the floors. From a design on the floor of a similar royal apartment at El Amarna, we can supply the missing details.

From the main door to the foot of the ramp was a wide strip divided into transverse panels, each with a figure of a captive or a

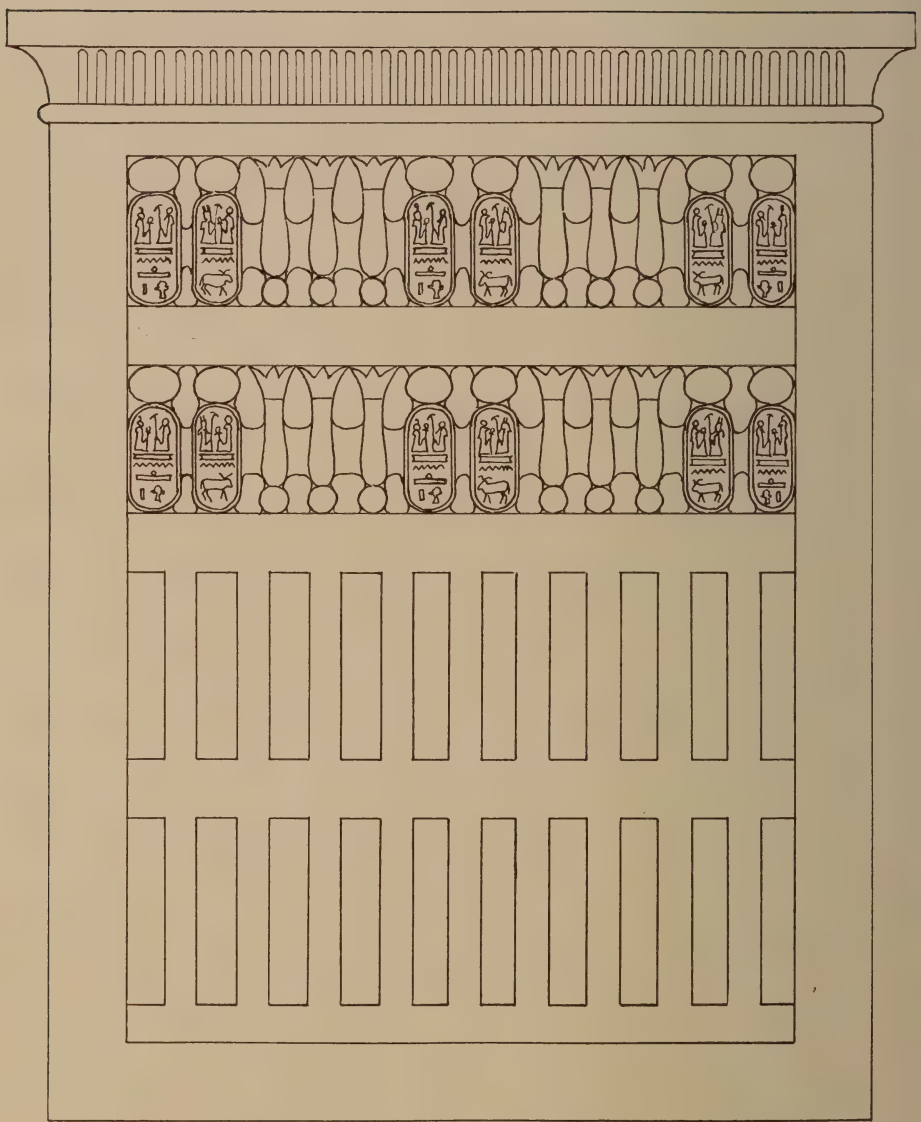


One of the Six Doors in Throne Room Leading to Side Apartments.

single bow. The captives all faced towards the door but their heads were placed alternately towards the right and left. There was here probably only a single row of captives on the main floor instead of a double row as on the ramp. Along each side of this band was a border of *rakheet* birds with upraised human arms symbolic of all peoples, adoring the king, within narrower borders composed of simple bands of red and blue and a row of discs, those with red rims having blue centres and vice versa. This motif filled the main aisle. The spaces between the columns and the outer walls were given up to marsh scenes, with various water fowl disporting amidst the lotus blossoms. The whole floor was enclosed in a composite border of simple bands and discs as in the central division. This richly colored covering would have had the appearance of a beautiful carpet.

The dais upon which was placed the chair of state stood at the far end of the room. It was of limestone raised twenty inches above the main floor and approached by a slope but slightly narrower than the outer end of the dais itself. The decoration on the ramp and dais was cut in low relief and colored like the floor. There were panels of captives with bows surrounded by a wide border of *rakheet* birds, rows of discs and simple bands. At each side was a block of stone cut to form four steps each with a sunken panel containing a captive or double bow. There were traces of gilding overlying the red bands and it may be that in every case red was simply the basis for the gold leaf.

The walls were finished in the same way as the floor with a final fine coating of white stucco. At no point did they remain for a greater height than six feet, so that we have only the material for a restoration of the lower portion. This dado was divided into horizontal strips. The lowest had a series of painted offering niches with spaces between sufficient to contain a bunch of lotus or papyrus plants, the respective emblems of Upper and Lower Egypt. Above this was the usual charming narrow border of red, green, yellow and blue blocks. Then came at least two rows of cartouches bearing the double names of the king between the *ankh* and *uas* hieroglyphs meaning life and happiness. This brought the decoration to a height of about eight feet. Between here and the ceiling the wall space may have been filled with similar bands of cartouches, but from the inner faces of several of the doorways I am inclined to think that it contained more spirited pictures, such as the king



Window from Throne Room of Merenptah.

hunting and fishing or perhaps, to follow out the idea uniformly expressed on the columns, scenes showing the king making offerings to Ptah, or slaying his enemies. The windows were placed high up, four along each side, corresponding to the spaces between the columns and possibly two at the rear wall on either side of the throne. Each window was cut from a single thin slab of limestone and one has been restored from fragments found lying just outside the walls. It was divided into four horizontal parts, the upper one having a pattern of three groups of double cartouches separated by *kheker* ornaments. In the second division were similar cartouches but separated by winged hawks. The lower two divisions contained rows of simple open slots. The spaces between all these were perforated. The entire surface of the windows was either colored in harmony with the wall decoration or was completely gilded.

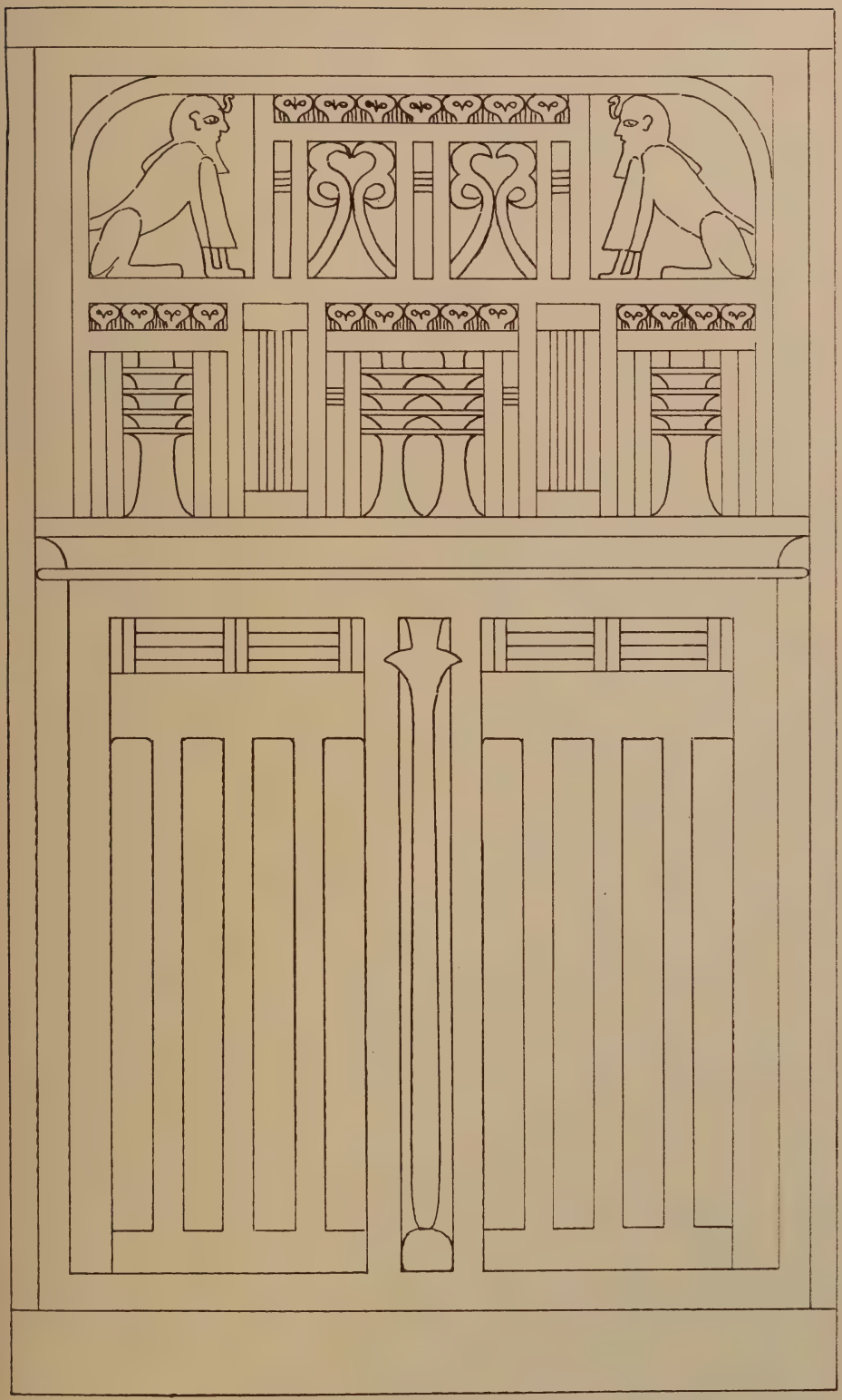
The roof was divided into three main panels by the long wooden girders of cedar wood resting on the two rows of columns. These had inscriptions similar to those on the doors and columns, painted with dark green and blue on a reddish ground. The transverse rafters rested on these at intervals of three feet and were likewise painted red, while the ceiling spaces between them were colored a brilliant blue studded with golden stars to represent the heavens.

The entrance to the throne room from the vestibule was much wider than the doors leading into the side chambers but its height was not in corresponding proportion so that it had a somewhat squat appearance. A heavy lintel increased this effect. Each side of the door framing was a single upright block, containing double vertical lines of inscription giving the two names of the king with his titles of "Lord of the Two Lands," "Lord of Diadems" and variations of the usual ending for long life and happiness. At the bottom was a small panel showing two gods of the Nile bringing in jars of the water which gives life to Egypt. The panel continued inside the opening with one figure and one vertical line of inscription above it. At the upper end appeared the Horus name of Merenptah, which differed somewhat on each lintel. The figures in the panels were in low relief but all hieroglyphs were inlaid with blue faience. They were first marked out on the surface and then chiselled away to a depth of about three eighths of an inch. The faience was apparently made in sheets which were cut up as required into pieces of the proper size and shape. Simple signs were formed of a single piece but more complicated ones and those having long curves

had to be made up of separate bits fitted together. The edges were cut with a bevel and the pieces were bedded in white cement which was allowed to squeeze up between the joints as the faience was pressed into position and the excess wiped off the surface.

The lintel was made of two blocks, one forming the main architrave and the other the overhanging cornice above it. As these stones had to span not only the opening but the two sides of the door framing as well, they were over seventeen feet in length. The decoration was very elaborate and was a fine example of the ability of the Egyptian artist to lay out a design with due regard to symmetry and beauty. The composition filled the space and inscriptions were combined with the relief figures with considerable cleverness. In the centre at the top a winged sun disc held two chains of *ankh* and *uas* signs. This formed the axis of the composition and on either side were two scenes practically the same but reversed for the sake of symmetry. In the first was Merenptah seated on his throne beneath a canopy. In front of him was a sort of standard, that on the right of the lintel bearing a figure of the *Set* animal and that on the left a hawk headed animal, both wearing the dual crowns of Upper and Lower Egypt. Both held out towards the king the emblems of life, happiness and endurance. The standards had two human arms holding staffs of many years and the emblem for the anniversary festival. At the ends of the lintel were scenes where Merenptah stands before the shrouded figure of Ptah, the great deity of Memphis in a shrine. At the right end was Merenptah receiving from the god the emblems of life and happiness and at the left he gives to Ptah a small figure of Truth. On the cornice were a series of cartouches with the king's names alternating with groups of three vertical feathers. At the ends of the cornice were two hawks with partly folded wings. All the human figures on the lintel were in relief, but the wigs and crowns were inlaid with faience specially made to fit. Portions of the robes were covered with gold foil. All hieroglyphs were of faience.

The actual doors were double and when open rested against the sides of the opening behind the stone framing. They turned in bronze sockets which were fitted into heavy stone blocks in the threshold. The wooden framing was four inches thick and the edges were strengthened with heavy wrought bronze, which appeared as straps across the door. On these were engraved the two cartouches of the king, and were probably gilded.



Window from an Apartment Adjoining the Throne Room.

The six smaller doors inside the chamber were of the same technique, but on the lintels were inscriptions only and no relief scenes. The main panels were symmetrical designs of the two Horus names of the King combined with his two regular cartouches, while short inscriptions started from each side and continued down the framing. The wording on each door varied but followed the usual formulae. On the cornice was a winged sun disc, of which the feathers were inlaid with a number of pieces of blue faience outlined with gold leaf, while the disc itself was wholly gold.

The columns had an inlaid band of inscription similar to those on the door frames extending around the base. The bottoms of the shaft had lotus sepals in relief starting from a wide band of gold. Between the tops of the leaves were inlaid lotus flowers. Half way up were scenes in relief corresponding to those on the main lintel or substituting for the scenes of offering to Ptah, a picture of Merenptah slaying his foes before the shrine of the deity. The capitals were decorated with an elaborate pattern of cartouches between lotus stalks and flowers.

THE EXPEDITION TO PALESTINE

Beisan as Seen from the Air
Royal Air Force Photographs

By Clarence S. Fisher

Note.—The services to archaeology rendered by the Royal Air Force in the Middle East were briefly referred to in the last number of the Journal in connection with the Joint Expedition to Ur in Mesopotamia where photographs of the ruins were made from the air. Similar fine work was done by another squadron of the same organization in Palestine where photographs were made from the air showing the present stage of the excavations conducted by our Expedition to Beisan, described in the last Journal. The Beisan Expedition is indebted to the General Officer Commanding in Palestine and the squadron under his Command for the prompt response that was given to a request from the Expedition for cooperation. Photographs were made from an airplane at different heights showing the excavations and the entire site together with the surrounding country. By this generous cooperation the R. A. F. has made a contribution to modern methods in archaeology that calls for recognition. It has been a highly intelligent cooperation, freely and cheerfully rendered. The air photographs placed at our disposal are part of the permanent records of the Expedition. We can do no less than acknowledge the fine spirit of helpfulness that our scientific Expeditions to the Middle East have met with on the part of the Royal Air Force. The squadrons in Egypt, Palestine and Iraq have placed Archaeology under deep obligations to them. Three of the photographs of Beisan are published here with notes by Dr. Fisher.

Editor.

AFTER the close of the Museum's Expedition at Beisan for the season of 1923, aerial photographs of the excavations were taken by the XIVth Squadron of the Royal Air Force stationed in Palestine. Through the courtesy of the Commander, three of these are reproduced herewith.

The first is a view of Tel el Husn, the Citadel of Beisan, which has thus far been the scene of the Expedition's major work. This is taken from the east looking nearly due west. The main hill looms up in the foreground and one obtains a much better idea of its magnitude and symmetrical shape than appears in any ordinary photograph. The relation of the east and north terraces to the summit are clearly discernable. At the foot of the hill on the right is the River Jalud, whose winding course can be traced across the

Photo by the Royal Air Force

Aeroplane photograph of Beisan, the Tell or Citadel in the foreground.

Photo by the Royal Air Force

Aeroplane photograph of Beisan, looking down on the excavations on the Tell or Citadel.

Photo by the Royal Air Force

Aeroplane photograph of Beisan; at the right is the Tell, towards the left, the Village, beyond the Vale of Jezreel and Mount Gilboa.

Plain of Jezreel in the background. On the extreme left is a portion of the modern village of Beisan. The main road and several bypaths cross the Jalud on a rebuilt stone arch near the upper right hand corner of the picture, while just above are the buildings of the headquarters of the Expedition.

The second view is one looking down on the excavations from the north and shows the extent of the work thus far accomplished and the present aspect of the summit where we have reached the eighth level or building period. Along the east, north and west sides, on the terraces, the buildings visible belong to the later Arabic and Byzantine periods, while on the summit nearly all the walls are either Scythian or Egyptian, with a few of the heavier foundation walls of the Roman temple and the later basilica which have not yet been removed. Extending out from the east side of the summit is the large earth embankment which had been made for the light railway line which carries off the debris from the main excavations to the eastern edge of the hill. As the work progresses and the lower strata are reached the level of the railway line will be lowered until the hill has been completely excavated when the ruins will be left completely bare and unencumbered.

The third photograph was taken from a point much farther to the east and at a higher altitude than the first. It gives a survey of the whole stretch of country between the slopes of Mount Gilboa in the background and the River Jalud. This great area which once was famous for its fertility and richness, is now mostly occupied by pestilential swamps, which are gradually being drained by the Government. The isolated position of the ancient mound, which gave it its great value as a stronghold, is well shown in this picture. In the immediate foreground is the edge of the plateau, that falls in a steep declivity to the Jalud that cuts across the picture from right to left. On the other side of the Jalud near the right of the picture is seen the hill or citadel of Bethshean or as it is called Tel-el-Husn (The Hill of the Fortress). A little farther away beyond the Jalud is the modern town of Beisan. The Jalud itself is hidden in the deep gorge in the middle foreground. We are looking directly west. Behind us at a distance of three miles lies the Jordan.

The Ziggurat of Ur in process of excavation.

THE ZIGGURAT OF UR

From the Report of the Joint Expedition of the British Museum University Museum to Mespotamia.

By C. L. Woolley

DURING the whole of our digging season (1923–24) the greater number of the workmen have been engaged upon the clearing of the Ziggurat, and before the work closed down this, the most imposing of the monuments of Ur, was fully exposed as it had not been since its destruction in the fifth century B. C.

In each of the chief cities of Mesopotamia there stood of old one of these ziggurats or staged towers whose ruins today dominate the lower mounds that were temples or palaces. They were great solid structures rising up tier above tier, each stage smaller than the one below, so that the whole had the effect of a stepped platform; stairways or sloping ramps led from the ground level to the summit, and thereon was set a little shrine dedicated to the city's patron god. The amount of labour that went to the building of such a tower was immense, and one wonders why it should have been incurred so regularly in every great town. The explanation seems to be that the Sumerians were originally a hill folk, accustomed, as all hill folk are, to putting up their temples and their altars on "high places" and "on every high hill;" when they moved down into the plain of Mesopotamia, where the flat alluvium stretches unrelieved to the horizon, they felt the need of the "high place" where God could be properly worshipped and so set to and built artificial mountains whereby man might approach nearer to heaven. The tower of Babel was meant to storm the throne of God with prayer at close quarters rather than by force of arms.

The ruins of Khorsabad have given us the remains of one ziggurat fairly well preserved and Herodotus has left us a description of that of Babylon; the Greek's account is none too clear, but he evidently is describing a building very different to that represented by the ruins, and we can only gather that whereas the idea of all the ziggurats was the same, in plan and in ornament they varied much one from another. Therefore the clearing of that at Ur, the best preserved of all the ziggurats in Mesopotamia, was bound to be a work of great interest.

The lower Stage of the Ziggurat of Ur; after excavation.

Much of the history of the monument was already known, for in the middle of last century Mr. Taylor, excavating on behalf of the British Museum, had found the inscribed clay cylinders whereon Nabonidus, last king of Babylon, had recorded how he had repaired and completed the tower begun but left unfinished by Ur-Engur and his son Dungi, kings of Ur about 2300 B. C. We knew therefore that we should have to deal with buildings of that early date and of the sixth century B. C. Actually of Dungi we have found no trace, and we can only conclude that his work was limited to the upper structure which was swept away to make room for the new buildings of Nabonidus; it is safer to assume this than to suppose that Nabonidus was in error, for the king was a keen archaeologist, fond of digging up the foundation-records of his predecessors and basing his statements upon their written evidence; that he did so here is sure, for at the corner of the second stage of Ur-Engur's work, below an unbroken pavement laid down by Nabonidus, we found a hole driven right into the heart of the brickwork, a hole that could only have been made by the later king's workmen searching for the old foundation-deposits.

Even without the later foundation-cylinders (further examples of which were found by us this year) it would have been possible to assign to each king his own part in the building, for the royal stamps on the bricks left no doubt on the subject, except indeed where the later builders re-used some of the material taken from the earlier walls. The whole of the lowest stage is due to Ur-Engur, and everything visible above it to Nabonidus. There is nothing to tell us what the upper part of the original ziggurat was like; that of the sixth century B. C. can be reconstructed in all its essential lines.

The lowest stage is a rectangle, the short ends straight, the longer sides slightly convex, as if to give an appearance of greater strength to the centre, where the building was highest. It is solid throughout, of crude brick inside with a thick facing of baked bricks laid in pitch for mortar; to secure a bond, reed mats dipped in pitch were laid between the brick courses at regular intervals. The quality of the bricks and of the bricklaying is astonishingly good, and much of the wall face is as clean and new looking as when it was first built. The surface is relieved by shallow buttresses; a further variety is afforded by the numerous "weeper-holes" running right through the thickness of the burnt brick wall for the drainage

One of the Stairways on the Ziggurat of Ur.

of the filling which without this precaution would have swelled with the infiltration of the winter rains and burst the casing.

On three sides the ziggurat walls rise straight and unbroken from the ground, but on the NE side are the stairs leading to the summit. There were three flights of a hundred steps each; a central flight, and from either corner of the ziggurat a flight running up against the wall face, the three converging at the top in a broad gateway through the parapet of the second stage; the two angles between the central and the side stairways are filled by solid platform towers whose flat tops were probably decorated with statues. The whole conception is very dignified, and the threefold approach must have lent itself well to such ritual processions as we may imagine to have formed part of the Moon god's worship. That there was a second stage to Ur-Engur's tower is certain, and we have found remains of it *in situ*, but from Nabonidus's account we may perhaps infer that there were no more than two; but though its design may not have satisfied the Babylonian king the building such as it was planned must have been completed in the time of the Third Dynasty of Ur; during the next eighteen hundred years royal builders who did much work in the city carried out minor repairs to the ziggurat and if the top had been left unfinished would certainly have worked there too, but neither we nor Nabonidus found any evidence for their having done so. We must conclude that Ur-Engur's building whose lower part survives today was completed at least during his son's reign, and that when Abraham lived at Ur he looked up daily to a ziggurat which was then a finished monument.

In the sixth century B. C. Nabonidus respected most of what was left of the ancient building. He put down new brick treads for the staircases, but he did not alter their design, and it was only on the top of the structure that he swept away the older ruins altogether to make room for something more suited to his tastes. Three stages set on the old base gave greater height to the platform on which the shrine was to be built; these were not of the same proportions as the lowest stage, but left at either end a platform much wider than along the sides, and on the NE side there was no lowest stage at all, the entrance from the triple stairway giving directly on to the second platform. Entering here one turned to the left and went down a short flight of steps to the lowest platform at the SE end of the ziggurat (like all such, the ziggurat of UR is orientated with its corners, not its sides, to the cardinal points of the compass),

and passing to the centre of this up a broad staircase to the top platform of all, while smaller flights led to the third platform by which one could walk right round the building. Theoretical reconstructions of ziggurats in the past have always aimed at a perfect symmetry such as the groundplan would seem to dictate; the ruins at Ur present to us a structure curiously irregular and almost lopsided. But this irregularity is calculated. The top of the ziggurat is treated as a thing in itself, without reference to the surroundings, which indeed were too far below to matter; everything is subordinated to the effect to be obtained from the lowest platform at the SE end, where the spectator has before him the stepped terraces and the main and side stairways, all the lines centering on the shrine above. From below, the only view that really mattered was that of the NE face, for all the other sides were more or less encumbered and concealed by other buildings; here therefore the lowest stage was carried up higher and the passage from the stairway to the lowest platform was hidden by a parapet which masked the real lack of balance on the two sides; only two upper terraces were visible with the shrine crowning the whole.

In a previous report I described a large courtyard that lay below the ziggurat on the NE side. The floor of this lay at a lower level than the ziggurat, which really stood high on an artificial terrace held up by the boundary wall of the court, and it was from the court that the best view of the ziggurat was obtained. To some extent we can recover at least the main features of this view. The courtyard, with its paving of brick and asphalt, stretched this way and that for a hundred yards and was some sixty yards wide; the bounding wall was decorated with attached half columns fronted by a colonnade; the whole was whitewashed. Above this rose the terrace on which stood the ziggurat isolated and huge. The lower part was all painted black; the three staircases ran up to a great doorway at the top of the main stage which here, in its centre, was higher than at the two ends, so that all the lines, the actual side walls of the ziggurat with their slight batter, the parapet with its sharper break, and the steep-pitched converging stairs, all led the eye upwards and inwards; over the black parapet shewed the upper terrace of bright red brick, and on the top of all the shrine built of glazed bricks of brilliant sky blue. The scheme both of colour and line has been carefully thought out; the vertical lines of the white columns below, the converging lines against the black mass of

A Stairway on the Ziggurat of Ur.

the first stages of the tower, the plain red step leading up to the blue shining cube of the shrine, all contribute to the effect, and make of the ziggurat of Ur an architectural monument worthy of our admiration and of Nabonidus's pride.

The new buildings whereon the king of Babylon relied for the perpetuation of his name did not last long, and today they are a sorry ruin; luckily enough remains to establish their original character (though few but Mr. F. G. Newton, who fortunately was the architect of the Expedition, could have solved all the riddles of the scanty walls and broken floors), and, though the upper part has suffered much, though the shrine has wholly disappeared and of the stepped terraces but little has survived, yet the massive base with its triple staircase that Ur-Engur built more than four thousand years ago is the most imposing of the ancient monuments of Iraq.

NOTE.—Mr. Woolley, in this report, does not give the dimensions of the Ziggurat at Ur. According to plan prepared last year by Mr. Newton, the lower stage measures 130 by 195 feet and the height of the tower is 92 feet.

The Tower of Babel, or the Ziggurat of Babylon, is described on an ancient Babylonian tablet translated by George Smith. According to this document, the Tower of Babel had seven stages. The lowest tower measured 300 feet square and the whole was 300 feet in height. Nothing is left of this tower at the ruins of Babylon. Its sides faced East, West, North and South, whereas the Ziggurat of Ur has its corners towards these points of the compass.

EDITOR.

Curious Painting on a Cliff of Mt. Tahumulco.

A JOURNEY IN NORTHERN GUATEMALA

By Robert Burkitt

AFTER riting to you from Chocolá, I went up to Kesaltenango: where I got a copy, which haz been useful to me, ov a privat map ov the Koopóm country. I also got a set ov unpublisht fotos to send you, ov the Chaculá colection ov antiquities. The weather waz getting dry in Kesaltenango, but in the northern country, beyond the Kuchumatán mountains, it waz stil very wet. All you could see ov thoze mountains, in the distance, waz a bank ov black cloud. In the mean time, til that country should get dry, I determind to make a journey to Soconúsco (that iz to say, to that part ov the Pacific slope ov Chiapas which iz next to Guatemala), and there see some mounds that I had heard ov, said to be a little beyond the Mexican frontier. I found the mounds: they wer in the neibourhood ov Little Túst1a (Tustla Chico). But accidentaly, in the same neibourhood, I found something much more intresting. I came across a great stone, or bowlder, most ov it embedded in the ground, but partly above ground: and in that part plainly sculptured with the signs ov the twenty days.

And I came across something else, in that journey. Coming back from Soconusco, the point I waz headed for waz Chiantla, at the foot ov the Kuchumatáns: and my way up there from the Pacific, took me past the volcano ov Tahumúlco, which iz the highest mountain in Central America. I happend to hear that Indians ov the neibourhood spoke ov some cave on that mountain, and ov strange ritings, or pictures, on the side ov the cave: and it struck me that that might be something for the Muzeum Journal. The cave turnd out to be a clif, at a height ov about twelv thouzand feet above the sea: and the drawings, which ar in red and green, to be aparently, things ov a hieroglyfic nature. I made two expeditions to the clif, the second time with tracing paper, and by making ladders, I waz able to get up and copy the best ov the drawings.

It waz then about the middle ov March. A few days later, after reaching Chiantla, I waz caught, and delayd, by Holy Week. Traveling east to Kunén, I then crost the Kuchumatáns, and went down on the other side through Chipál.

I send you, given by Mr. Gustavus Kaehler ov Kesaltenango, a set ov unpublisht fotografs, showing the Chaculá colection ov antiquities, az it was in the time ov the colector. The colection iz now, in great part, destroyd or lost.

Chaculá, in Guatemala, and the neibouring Sakchaná, in Chiapas, have been ritten ov, as you know, by the late Mr Edward Seler, who vizited them about 1896. The owner ov the Chaculá estate, and the maker ov the colection, waz a countryman ov Mr

806 *Photo by R. Burkitt*

A Sculptured Stone at La Rióha.

Selers, the late Mr Kanter. The estate waz a cattle estate, and Mr Kanter waz one ov the principal graziers ov that part ov the country. Mr Selers vizit turnd him into an antiquary. He began diligently gathering antiquities: some from az far off az Comitán, but most from hiz own neibourhood ov Chaculá and Kéen Sánto: forming by degrees what came to be known az hiz muzeum: which returning from Mexico, I my self once saw. Kanter also took to reading books, and deducing hiz own theories from them. Evrything turnd on Tibet. From Tibet az a centre, arts and manners spread over the face ov Asia: but the seeds ov thoze arts and

manners wer brought to Tibet from Chaculá: I forget by what means. Whatever might be the case with hiz theories, however, ther could be no dout about the great intrest ov hiz colection: which waz reputed to be the largest privat colection existing, ov Guatemala antiquities.

Kanter and hiz colection wer both destind to dizaster. Kanter, who had always been adicted to meddling in nativ politics, in hiz old days drew down the displeasure ov the Guatemala dictator, and az Ive told you before, had to fly the country, and died a refugee in Chiapas. The Chaculá estate waz given over to pillage and ruin. For some time troops wer quarterd on it: and the operations ov the bare-footed soldiers extended in full severity to the muzeum. I am informd that things ov stone, that wer too massiv to be eazily stolen or broken, stil remain: but ov much the greater number ov things, and ov much that waz most atractiv, theze fotografs ar the only record.

Theze fotografs, which wer the only fotografs ov hiz antiquities that Mr Kanter ever alowd to be taken, and wer taken by hiz son in law, that iz to say by Mr Kaehler himself who now givs them to you, you will find to be thirty five in number.

I also send fotografs that I hav made ov stones in the neibourhood ov the river Suchiate: that iz to say, in the neibourhood ov the frontier between Guatemala and Chiapas, in the part next the Pacific.

The Pacific slope, in the neibourhood ov that frontier, iz dominated by two companion volcanos: one ov which iz entirely in Guatemala. That one, which iz Mount Tahumúlco (Spanish spelling Tajumulco), and the highest mountain ov Central America, iz the mountain that you hav a hazy view ov in foto 120. The view iz from the seaward side: and the left hand side, in the picture, iz the side towards the companion volcano ov Tacaná: which iz partly in Guatemala and partly in Chiapas. The little boundary river, or torrent, ov the Suchiáte comes down between the two volcanos. Tocaná, which iz only a little lower than Tahumúlco, iz the mountain you see the top ov in foto 121: and the Suchiáte river, invizible, iz in the bush below you, near the bottom ov the picture. You stand on the Guatemala side ov the river, but most ov the country that you see iz Mexican: it iz the part ov Chiapas that iz calld Soconúsco. And that foto may giv you an idea ov what most ov the country there looks like, no matter on which side ov the river. In the other foto, 120, you see the country very broken: you ar

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Sculptured Stone at San Jerónimo, in Soconúsco.

Photo by R. Burkitt

already high among the foot hils: but once below the foot hils, az you see in the fore ground ov 121, the apearance iz the general apearance ov the Pacific slope: the apearance ov one steady slope, in which the actual ups and downs, rivers, villages, coffee plantations, and all diversifications, ar lost under the uniform mask ov bush.

The stone, 806, waz at a place La Riója, on the Soconúsco side ov the Suchiáte.

On that side ov the Suchiáte you will find markt, on most maps, a village calld Tustla Chico, or Little Túst1a. A little above that, ther iz a smaller village Cacawatán: which you may find spelt Cacaoatán, or Cacahuatán, or Cacaguatán, or in some other way. The place La Rióha iz a coffee plantation, a little to the west, or to the north west, ov that Cacawatán: and perhaps twelv hundred feet above the sea.

I had been informd by a man who had known the place, La Rióha, that ther wer a number ov artificial mounds there: and that one ov them, which the owner had had the curiosity to dig up, had been found to contain a great quantity ov very hansome things, both pottery and stone: a quantity described az being near a ship load: which the owner, being a Spaniard, had sent to Spain. From experience, I expected that I should find a good deal ov exaggeration, not to say lies, in the acount: but I must say, not quite to the extent that I actualy found. The Spanish owner waz real. I found him: and he waz able to show me a mound, in which he, or hiz father, had once dug a hole: but finding nothing in the hole, they had stopt digging. Az for the ship load ov things sent to Spain, they had never sent anything to Spain, and the ship load ov things could only amount to this, that they had realy found on the place, a certain big carvd stone: which the man took me to see.

My fotografs show you the stone. You see that the head haz the lower jaw nockt off, and the upper jaw damagd: and that reptilian head, with the indication ov the number three, haz arms apended to it, but nothing else. The back part ov the stone iz cut into the shape ov a trough, which opens downwards into the throat and mouth ov the head. The stone where you now see it, iz near a house and a coffee yard, and the trough iz some times uzed az a manger: but the stone was dragd there with great labour, az a curiosity. The original place ov the stone waz near the mound: and the posture waz like that ov the Chocolá stones: the carvd stone had a big flat stone under it.

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Mount Tahumúlco from Porvenir on the Seaward Side.

Photo by R. Burkitt

Leaving La Rióha, or Cacawatán, to go back to Guatemala, I waz headed up hil. The more natural way would hav been to go down to Little Tústla, and cross the Suchiáte by a good road. However ther waz some trouble in that direction, and I waz to take a ford: and the ford that I waz bound for, and in fact crost by (and from beyond which I took the foto 121), waz at a place—Ive forgotten its name, but several leagues up from Cacawatán. The Rióha stone had shown that I waz in a region ov sculptured stone. And going up, az Ive said, to my ford, I had word ov an other sculptured stone, which had been found on an other coffee plantation, Saint Jerom (Spanish, San Jerónimo), which would not be much out ov my way. I went to Saint Jerom, and my fotograf shows you the stone (807).

Like the Rióha stone, this stone iz not in its original place. The original place waz at the foot ov a small artificial mound: the stone where you see it, iz on top ov that mound. It happend that the mound had been taken az a land mark: and the owner ov the land put a small masonry monument on the mound, and uzed the ancient stone az a cap for the monument. In the fotograf you distinguish at once the ancient sculptured stone, its lower border jutting out beyond the pedestal. The owner, or hiz mason, at the same time mended the apearance (az they considerd) ov the batterd ancient stone, by a coat ov plaster on the upper and lower borders: by good luck the plaster waz bad, and all that iz now left ov it, iz two small patches that you may notice, on the left hand side: one above the sculpture, and one below.

The stone iz a flat stone, about a foot high, and two feet square, and sculptured on the four sides: ov which the two that you see, taken together, ar the two that ar least damaged. In the left hand sculpture, you notice that the human figure haz its hands, az you might say, outside the picture, resting on the border. The defaced head ov the figure, iz no more to be made out on the stone itself than in the fotograf. On the oppozit, and worse defaced side ov the stone, that you dont see, it could be made out that the sculpture waz like this in scheme, but different in detail.

The right hand sculpture, that you see (which may seem to involv a Mexican day sign, with arms and legs, and perhaps wings, added), iz repeated exactly on the oppozit side ov the stone: with only this difference, that the figure, in stead ov looking towards the beholders left, looks towards hiz right, and consequently in the

same direction az the figure that you see. I tried to find out in what direction the stone, or any side ov it, had originaly faced, but nobody rememberd. It waz only rememberd that the stone had been taken from the eastern foot ov the mound.

It turnd out, however, that this waz not the only sculptured stone at Saint Jeroms: I waz shown two others: neither ov which, so far az waz known, had ever been moved. The place ov thoze two others (which ar near together) iz a little to the right ov the picture you wer looking at, and above thoze coffee yards and tin barns. Ther ar, or wer, some work mens cabins up there: and one ov the stones waz to be seen inside one ov the cabins, in the middle ov the floor. It waz a stone carvd in the shape ov a gigantic lizard. The lizard, which may hav been four or five feet long, but had its head missing, waz stretcht out on a sort ov stone table: the lizard and the table being one stone: and the hole thing, which roze to perhaps a foot above the floor, waz imoveable. The lizard and the table wer nothing but the top ov some great stone, perhaps a natural rock, the rest ov which waz under ground.

A few steps away from the cabin waz the other stone: which I found to be the least spectacular, and much the most intresting ov the three. That stone, like the lizard stone, waz evidently some great stone, or bowlder, ov which only a little waz above ground. That little that you could see, waz an iregular, roundish hump ov stone: I should say, from memory, about a foot high, and rather less than the length ov a man in diameter. The people had told me that the stone had drawings on it: in particular, the drawing ov a deer. The drawings turnd out to be low reliefs, ov an inferior workmanship to thoze ov 807, and a good deal abraded, but little broken. The deer waz quite plain: and ther waz a dog, and a lizard, and a bird, and a snake: and in a few moments I waz aware that I waz looking at the signs ov the twenty days. It grew dark az I waz making out the signs: and az people further on wer waiting for me, I waz not able to stay til morning: and I am not certain whether all the twenty signs wer comprized in the vizible part ov the stone: but if not all the twenty, certainly the greater number. Each sign occupied a space about az big az your hand, or az big az your two hands: and what gave me much trouble, they wer not in order. They were not in either ov the two obvious orders that might be lookt for, nor in any orderly arangement at all, that I could see, but formd a haphazard crowd: and in that respect (though in no other

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Photo by R. Burkitt

The Peak of Tacaná, seen from Mt. Tahumúlco.

respect) reminded me ov the whimzical distribution ov them in the drawing in the Turin manuscript.

The owner ov the place told me that he had once been curious to see how deep the stone went, and dug down on one side about a fathom, without getting to the bottom. It happened at that moment ther waz a heavy rain, and the pit that waz dug waz filld with water, and a drunken man waz drownd in it. The digging waz then considered unlucky, and the pit was filld up. But if anybody else wishes to dig, the owner—a very pleasant nativ—will be happy to let them.

This sketch iz not drawn to scale, but wil do to bring out the situation. In going up from the hot country ov Malacatán to the cold country ov Tehútla, and further inland, the usual way, and the only way that most travelers ever car ov, iz by a bridle road which climbs round the western side ov Mount Tahumúlco. On that road iz the tiny village which givs its name to the volcano. But the Indians ar acquainted with a shorter, and what iz doutless the ancient way. That way, which iz markt on my sketch with dots, iz a steep foot path, crossing the mountain a little to the east ov the top: and may be reprezented az joining the coffee plantation ov Porvenír (which iz among the foot hils ov the Pacific side) with the lofty inland hamlet ov Saint Sebastian. The clif ov the drawings iz on that path. By that path you can get to the clif either from the Pacific, or from the inland side: and at different times I went both ways.

Coming from Soconúsco, my *first* way, naturaly, waz from the side ov the Pacific. The plantation ov Porvenír (where I waz obliged to the manager, Mr Thiemann, for much valuable help) waz my starting point: and the foto 120, that you saw, waz taken from there. The top ov the mountain, in that foto, iz a little east ov north: and to the right ov the top, you see a hump calld Conception Hil: which runs down further to the right, in a ridge, or spur, with a sharp point on it. That sharp point iz calld Bull Hil. The place ov the clif iz beyond anything in sight: but the path to it, goes up to the saddle, that you see, between Bull Hil and Conception Hil: after which, the path doeznt go down on the far side ov that saddle, but goes on, and stil up, on the side ov the main mountain.

The manager and others, ov Porvenír, wer not themselves aquainted with the clif: and the Indians who new it, and wer afterwards my guides, described it az a cave—a cave with ritings or

pictures, on the sides: and I expected to go into a cave, and took candles, and magnesium light with me. In stead, I waz shown a crag, or clif, about fifty feet high. The clif, which iz very broken and uneven, in its short length, in places a little over hangs: and in one place, at the foot, ther iz a shallow recess, in which a traveler, caught by night, would hav some shelter from rain, or from hail, though very little (az I found by experience) from wind and cold. But excepting for that little shelter (to the Indians the only thing important), ther waz nothing rezembling a cave. However, it waz to be seen that ther wer drawings on the face ov the clif: painted drawings which wer evidently ancient: and whether ov much intrest or not, I saw that with something like tracing paper they could probably be copied. I went down again to Porvenír, where my beasts and baggage wer, and going round by the village ov Tahumúlco, went up to the hamlet ov Saint Sebastian: and from there made my second vizit to the clif, when I made my copies. The aproach from the inland side iz much eazier than the other, in the fact that you start from higher up. Porvenír iz about 4000 feet above the sea: the Saint Sebastian country iz more than twice that.

Foto 122 iz a distant view ov Mount Tahumúlco, from the inland side. You ar looking about south west. Just in the middle ov the picture you can make out the village ov Tehútla (Spanish spelling Tejutla). The village ov Tahumúlco would be some where in the direction ov the right hand side ov the picture, but much below the horizon. On the left, the hamlet ov Saint Sebastian may be supozed to be about where I have put a cross. The mountain doeznt look much like the same mountain that you saw from Porvenír. In taking the Porvenír picture my little camera waz very much turnd up, and the mountain iz made to look low: whereaz in fact it towers above you, in Porvenír, az if it waz going to fall on you. It so towers above you, that you cant see the top. Thoze rounded outlines that you saw, both ov the top and ov Conception Hil, belong realy to contours a good deal below the top. In foto 122 you see the mountain, or so much ov it az sticks up above the level ov the cold country, nearly in its true shape.

Tahumúlco iz a compound volcano, and the Conception Hil, which iz a lower cone ov it, iz the peak you here see to the left ov the top. The long ridge further to the left (which completely hides the Bull Hil ridge, ov the other picture) iz a ridge which in its highest part, where it springs from the main mountain, iz calld the hil ov

Photo by R. Burkitt

Mount Tahumúlco from a distance, from the Inland side, looking Southwest.

Sibinál. The hil ov Sibinál iz what cuts off the view ov the lower part of Conception Hil. The painted clif iz just on the far side ov what you see ov that hil ov Sibinál. The foot path from Saint Sebastian crosses the Sibinál ridge at a point which iz defined in the picture, by being where the left hand slope ov Conception Hil seems to strike the ridge. The clif, which iz just on the upper side ov the path, iz a few steps beyond that point.

The clif, az you see in my sketch, iz in the north easterly quarter ov the mountain. The precise bearing from the top ov the mountain (though the clif iz not visible from the top) would be about a point and a half north ov true east. Az for the height above the sea, my barometer waz out ov order: but the morning after sleeping at the clif, at the time ov my first vizit, I went to the top ov the mountain: and I judged that the climb from the clif waz not more than about 2000 feet. The top iz known to be about 14000 feet above the sea, and the clif, consequently, would be about 12000.

The clif haz its back ov course, to the mountain, or to the Sibinál hil, and faces about south east: over looking the precipitous gulf between the Sibinál and the Bull Hil ridges. It iz to clear that gulf that the foot path climbs so high. When you look off from the path, however, or from the clif, in stead ov the gulf below you, you ar much more likely to see a bay ov clouds: az you see in the fotograf 123. In that foto you ar looking towards the left hand side ov the bay, and the promontory that bounds the bay, iz the continuation ov that ridge ov Sibinál, that you saw the other side ov in foto 122. The sharp point that you see on the promontory, is calld the Serchíl top (cumbre de Serchil), which iz markt on my sketch, and some times on maps. The country below the clouds, iz the Pacific slope. Between the damp Pacific slope, and the high and dry interior, Tahumúlco and the ridge ov Serchíl ar part ov the long boundary: and the daily clouds ov the Pacific slope, ar formd, az you see in the picture, at the level ov the edge ov the interior. The clouds toss and boil, but without escaping above that magic level: five hundred or a thouzand feet below the level ov the clif.

Ther iz a moment in the morning when the sea ov clouds, iz transmuted into a distinct and level, but transparent, sea ov haze. Fotos 124 and 125, wer taken at that moment. The level horizon that you see in them, iz not the horizon ov any real sea, but ov the sea of haze. Remnants ov the former clouds float at the surface ov the haze, like icebergs in calm water: a little ov the bulk raizes itself

above the surface, and shines in the sun. The fotografs (which ar most inadequat to the spectacle) ar taken, both ov them, not exactly from the clif, but from the hil on top ov the clif, the Sibinál hil. 124 over looks the same gulf az 123, but looks towards the right hand side, and the dark ridge rizing out ov the haze, iz the Bull Hil ridge. 125 iz in quite a different direction, looking some what north west: a direction which from the clif itself, would be impossible. The slope in front ov you iz the northern slope ov the mountain. At the bottom ov the haze ov course, iz the country ov the Tahumúlco bridle road, and ov the river Suchiáte. The iland that might seem to be surounded by icebergs, iz the peak ov the next volcano, the peak of Tacaná. And ov course to a spectator on Tacaná, Tahumúlco must hav a like apearance.

The clif itself iz what you see a part ov in foto 126. A front fotograf ov the clif iz not feazible: the ground along the base being only a few steps wide. This foto iz a sidelong view, showing a jutting angle. The direction ov the view iz south westerly. The stony hil, with its top above the tree line, iz Conception Hil: and you can just see, to the right ov that hil, the foot ov the main peak ov the mountain. To take in some height ov the clif, however, the camera iz decidedly turnd up, and the distance deceptively sunk. The stone ov the clif, and ov the mountain, iz the same az ov the Chocolá stone, a hard grey lava. You see it some times in clifs, some times thrown about in huge angular blocks: and with surfaces, which however iregular, hav a remarkable tendency to be smooth:—not az smooth az a slate, by any means: but if you had something in your hand to make a mark with, smooth enough to invite scribbling. And ancient and modern travelers, at this way side clif, hav not faild to scribble on it.

The modern scribbling, which iz all close to the recess uzed az a shelter, iz in charcoal. The Indian after boiling hiz coffee and lighting hiz cigar, haz a coal in hiz hand: and he vexes the rock with a cross, or a face: or if he haz been taught to rite, then some times with the date. The ancient scribblings, or drawings, ar not in the same part ov the clif az the modern: and most ov them ar less accessible: and in stead ov being in charcoal they ar in colour: most ov them in red, a few in red and green. Yet the instant general impression that you hav ov them, iz that with whatever differences from the modern, they ar scrawls ov the same order, the idle occupation ov a moment. One ov them, however, iz ov a more ambitious aspect

123 *Photo by R. Burkitt*

View from the Path near the Painted Cliff; with the Cumbre de Serchil rising above the Clouds that fill the Gulf below.

than the others, and not exactly to be calld a scrawl: and besides that one, I hav copied a few ov the best ov the others, that ar stil traceable, to let you see the apearance ov what I call the scrawls.

Az for the red and green colours ov the ancient drawings, I dont supoze for a moment, that the paints wer brought on purpose to paint the clif. If they wer not carried in the way ov trade, they wer most likely carried az cozmetics. In the case ov the drawings on the clif, however, you can see that the paint waz not uzed dry, but az a liquid, and laid on with something like a brush or a feather.

Why the paint waz not washt off by the first storm ov rain that beat against the clif, iz more than I can guess. Possibly it waz mixt with calabash varnish, the Indian waterproof varnish. But the fact cannot be seen. The paint now, iz protected from weather and from examination, by an act ov nature. The clif, or the hil above it, haz exuded a scanty amount ov something like a stalagmitic drip: which differs from that ov lime stone in being hard and glassy: and the stone, and the drawings, ar sheeted over with that glassy incrustation. Cover my copies with a sheet ov tracing cloth, shiny side up, and you will get a notion ov the apearance ov the incrustation. The incrustation (which iz perfectly dry) seems in many places to be as thin az paper, and transparent: but when it gets thicker, it haz a milky colour, and in some places obliterates the drawings. The drawings ar protected, but also in process ov being buried.

My copies ar made in outline, by tracing, and consequently ar full size: but ov course in many ways they ar defective. I wil mention two defects.

One iz a matter ov outline. The edge ov the paint iz too smooth. In the originals, when you get close to them, you find that the edge ov the paint iz usualy full ov small roughnesses, and uncertainties, cauzd by the roughness ov the stone. But my pencil in tracing, draws a precise line. All the small roughnesses ov the original (though not the larger roughnesses) have a tendency in the copy, to be smoothed out.

The other defect iz a matter ov colour. The red, which iz a bright red, and the green, which iz very near blue, ar fairly wel reprezented, I think, by the colours I hav painted:—ov course ther iz no incrustation on them. But my back ground, that iz to say, the tracing cloth, iz a long way from the colour ov the stone. It iz a little better than white would have been, but it iz stil altogether too

light: with the rezult that the paint stands out in a much more startling way, in my copies, than it does on the clif.

The distribution ov the drawings, on the clif, iz mainly in two tracts: a left hand tract (az you face the clif), and a right hand tract: and my copies ar from both tracts.

In the last foto (126), if you look some distance up the clif, at the edge ov the sunshine, you wil see a man. He iz the highest up ov three men, all near the middle ov the picture. The left hand tract, that I speak ov, iz in the neibourhood ov that man: partly to the mans left, in the shadow; but mostly higher up than the man, in the sunshine on hiz right. The drawings in the sunshine wer very vizible from where you stand: but whether on acount ov the sunshine or the incrustation, or I dont know what, ther iz not the faintest sign ov them in the fotograf. All the marks you see ar other marks. The most conspicuous ov the drawings there, and one that I thought ov copying, waz a big clumzy square afair, which at a distance lookt something like this, but with something inside it. When you got up to it, however, you found that the inside waz shrouded in the incrustation, and not to be made out. Among smaller things in the left hand trace, one waz a very small human head, partly in green, the only green in that hole tract ov the clif. And ther waz a quadruped which might be a dog. And just to one side ov the dog, and az if perhaps connected with it, waz a mark like this. Counting the tally marks (so to call them), you found them to be twelv: so that you might understand the hole thing az Twelv Dog: which ov course, in the antique system, might equaly be the name ov a day, or the name ov a person. The dog (or whatever it might be) waz in the sunny part ov the clif before you. And a little further out than the dog (and nearly level with the dog, but not aparently conected with it), waz an other drawing, not quite so bad, which waz evidently to be read az Three Deer: and my copy 808, iz ov that drawing.

The fotograf failing me, I am not able to point out the precise place ov the drawing. But in order to get to it, you climb to where the top man iz sitting, which iz on a narrow ledge: and finding foot holds further out, at the same level, you reach up to the dog and deer with your hand. They wer the two highest drawings, I believ, in the left hand tract ov drawings.

The right hand tract, which iz much the smaller ov the two, iz invizibly included in the stretch ov clif ov the last foto, 126. You

Photo by R. Burkitt

View overlooking the Pacific Slope from the Painted Cliff on Mt. Tahumúlco. The level horizon is formed by a sea of mist.

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Photo by R. Burkitt

View from Mt. Tahumúlco looking Northwest, with the peak of Tacaná rising from the morning mists.

see in the nearer part ov the clif, a big rounded stone, with its noze sticking out into the sun: the right hand tract ov drawings iz comprehended in a tall vertical facet ov the main rock, just on the far side ov that stone.

The deer waz a favourit animal on the clif, and apeard in several poor sketches, in this second tract. Ther waz no indication ov number with them, and you see the best ov them in 809. The hindmost leg ov the animal would seem to have been left unfinisht.

The other drawings in the same tract, wer ov a hieroglyfic nature, and three in number. One ov them, a small thing in red and green, waz hopelessly blurd by the incrustation. An other, which waz all in red, and not so much blurd, had the apearance ov what you see in 810. I might say that among the nine lines joining the inner and outer circles, the two finer lines that you wil notice, though I copied them, gave me the impression ov being mere stray brush marks.

The remaining drawing waz the big red and green one ov 811. About the green ov this drawing, you will notice that ther would seem to hav been some intention to uze the green more extensivly. In the left hand bottom corner, for instance, the space between the inside and outside frames, iz made green, but the green iz not carried round. My own fancy iz, that the painters first vague intention, waz to green the hole back ground, or a great part ov it. Then it waz seen that that would cauz an excessiv outlay ov green paint, and the experiment ov the green waz limited to narrow spaces.—Not that that would explain the green in evry detail: why should the bulls eye in the middle ov the picture, not be painted acording to the two examples in the right hand top corner? And why should the upper ribbon (so to call it) be chozen az a place for green, while I waz not able to see green in the lower ribbon: although that space iz continuous with the green space round the birds heads (or whatever thoze things may be)?

I hav told you that to reprezent the dark grey stone, variously blotcht and discolourd, the tint ov my tracing cloth iz altogether too light: and that defect, which iz not much matter when the drawing iz all the one colour red, becomes serious when you ad the green. The green, on the light ground, iz made to look much too important. On the clif, at a distance ov a few feet, you dont so much az see the green: all you see iz the red. The green blends with the grey ov the stone: it iz only when you get close to the stone, that you notice,

under the incrustation, that ther *iz* green. But the green on the tracing cloth looks az plain and certain az the red. Worse than that, in the prezence ov the green, the light tracing cloth falsifies your impression ov the red pattern. The red *away* from the green, iz made to look much more distinct than the red with the green beside it: which on the dark stone, iz not the case. To give you a right impression ov the pattern, and reduce the green to its proper inconspicuousness, the only remedy, I think, iz to darken all the blank part ov the tracing cloth, til it iz about the same darkness az the green. And until something like that iz done, I should consider the copy unfinisht. I hav no dout you wil find some artist at the muzeum, who wil be able to perform the necessary operation.

This last ov the clif-drawings, which I flatter my self—excepting for the probable day sign at the top—that even expert hieroglyfic-solvers wil confess to be something ov a pozer, waz the drawing that I hav mentioned az much the most ambitious, and in fact waz the one which alone lent intrest to the rest: and besides being conspicuous for its size, and complication, and ornateness, waz also conspicuously lonely. The drawings nearest to it, all the other drawings, or scrawls, on the same tract ov clif, wer down towards the bottom, in eazy reach ov your hand. This one, az if in contemt ov such companions, waz placed az far above them az the face ov the rock alowd: and could only be reacht, and must hav been drawn, from something like a ladder. That ladder might be ov the sort that I my self uzed in making my copy: a ladder cut from the surrounding pine-woods. But a drawing that required the making ov a ladder, could not hav been the work ov a moment, nor probably, ov a solitary passenger.

Foto 127 [not shown] iz an atemt at fotografing the place ov the drawing: and at the intersection ov the lines AB and CD, you can make out something ov the drawing itself. In the distortion ov the drawing, you may judge how much the camera waz turned up.

Foto 128 [not shown], which I send both plain and enlarged, iz an atemt from further off. The drawing and its suroundings ar seen smaller, but less distorted. This second fotograf waz taken after my copying waz done, and contains a memorial ov it. The horizontal streak that you see, just over the drawing, iz the streak ov gum, with which my tracing paper waz hung on the rock. The other three sides ov the paper wer not gumd: I had to be able to lift the paper, now and then, to look through the incrustation. The incrustation, in this

126

Photo by R. Burkitt

The Painted Cliff on Mount Tahumúlco.

drawing however, waz not so troublesome az the wind: the wind so blew, that I had to hav a triple ladder, and a man on either hand to hold the paper down. I might ad, that when I waz done copying, I had my ladders chopt up: so that no passenger ov a Vandal inclination, should be temted to get up and meddle with the drawing. But the drawings ar protected by the incrustation and by superstition: and a future traveler wil probably see them (unless for some advance ov the incrustation) without a shadow ov change. He may even see my streak ov gum. A streak ov gum, in that situation, might last til the end ov the world.

ERRATUM

Under the illustrations on pages 138 to 145 inclusive, for CHOCULÁ read CHACULÁ.

These views and those on the plates following show the Choculá Collection of Antiquities now lost or destroyed.

The Choculá Collection, Northern Guatemala.

The Choculá Collection, Northern Guatemala.

The Choculá Collection, Northern Guatemala.

The Choculá Collection, Northern Guatemala.

The Choculá Collection, Northern Guatemala.

The Choculá Collection, Northern Guatemala.

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THE
MUSEUM JOURNAL

VOL. XV PHILADELPHIA, SEPTEMBER, 1924 No. 3

THE ART OF THE OLDEST CIVILIZATION OF THE EUPHRATES VALLEY

BY LEON LEGRAIN

The wonderful discoveries made at Ur and Tell el Obeid by the Joint Expedition of the British Museum and the University Museum were briefly reviewed in the March JOURNAL. The very early forms of Art, going back to the Fifth Millennium B.C., recovered at Tell el Obeid in the neighbourhood of Ur, give a striking and vivid picture of Sumerian civilization at a very early stage, but still far from its beginning. For illustrations of the Dairy Scene and some other art objects the reader is referred to the March JOURNAL.

THE temple of the goddess Nin-ḫar-sag, the Lady of the Mounts, discovered in the neighbourhood of Ur at Tell El Obeid, by the Joint Expedition of the British Museum and the University Museum, was founded about B.C. 4300 by King A-an-ni-pad-da of Ur. His father was Mes-an-ni-pad-da the first king of the first Ur Dynasty as recorded on the precious chronological lists of Nippur preserved in the University Museum. Tell El Obeid is a low pile of ruins, 4½ miles distant from the stage tower of the Moon God Temple at Ur. The name of King Mes-an-ni-pad-da on the tablet in the University Museum had been deciphered some ten years ago, but his existence, as well as that of the two previous dynasties of Kish and Erech back to the flood, seemed somewhat legendary and mythical until the present sensational discovery, to use the words of C. L. Woolley, the Director of the Joint Expedition. From his monthly reports we borrow most of our information, to let the readers of the JOURNAL realize the importance of the find while awaiting the complete scientific publication.

Three buildings have been discovered by the Joint Expedition at Tell El Obeid at different levels, the deepest and original

building being that of A-an-ni-pad-da, the uppermost being erected by King Dungi of the Third Ur Dynasty, while the middle one is attributed to the kings of the Second Ur Dynasty some time between 4000 and 3000 B.C.

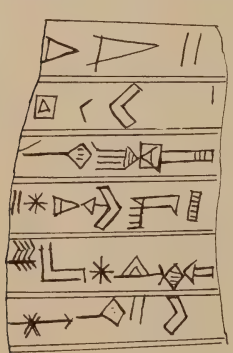
1.—Foundation Tablet.

The first building, that of A-an-ni-pad-da, is dated by documents inscribed in the cuneiform characters and discovered in the ground. They are: a soapstone foundation tablet, a gold scaraboid bead and a fragment of stone vase with a votive inscription. The foundation tablet, No. 1, reads as follows.

"To Nin-ḫar-sag, A-an-ni-pad-da, king of Ur, son of Mes-an-ni-pad-da, king of Ur, for Nin-ḫar-sag, he has built a temple."

The gold scaraboid, No. 2, pierced in the length, has engraved on the convex back "A-an-ni-pad-da, king of Ur." It is a bead, and probably a seal. The oldest seals, before the invention of the cylinder seals in connection with clay tablets, were first flat seals or beads carried as pendants in a necklace. The convex back might be carved in the likeness of an animal figure, lion's head, vulture, eagle, crouching bull or scarab. It was an emblem, a personal mark. The flat side resting on the breast might have some mysterious emblem, such as an animal figure cut so as to transform the object into a seal used to impress the personal mark. But that personal mark, to which later on was added a name written in cuneiform characters on cylinder seals, has to be traced back through the flat seal to the bead and the personal ornament which gives it its full cultural value. We know several seals of the Cassite Period, B.C. 1600 to 1100, deposited in temples as votive offerings: "*shakin aban duppi shuatu.*" The gold scaraboid bead or seal of A-an-ni-pad-da may be such a votive offering.

2.—Gold bead.



3.—Votive inscription on vase.

The votive inscription on a fragment of stone vase, No. 3, records the dedication to A-an-ni-pad-da of a stone vase decorated with metal to carry some liquid such as water or milk(?). The dedication was by Nannar-ka, and the ceremony included a libation.

The building of A-an-ni-pad-da may be the oldest known Sumerian Temple. Only the famous constructions of king Ur-Nina and his predecessors at Tello Lagash—can compare with it. They have much in common. "It is a rectangle—with an angle due North—with a projecting platform containing a staircase on its S.W. side and another projection approached by a massive staircase on its S.E. side. It consists of a platform with a containing —buttressed—wall of burnt plano-convex bricks above which rose a building of mud bricks of plano-convex form and red colour. The projections were also in mud bricks."

The old Sumerian temple was first a terraced enclosure with ramps or staircases leading to the upper level. This is the temenos or sacred area with the four angles at the four points of the compass. Within the paved court—kisallu—like the Latin templum or the modern khan, was erected one or several shrines and later the famous stage towers. But the towers are just an exaggerated development of the terrace, and the receding stages a necessary condition of the massive mud construction. The sacred enclosure and the threshold, whatever may be the god or the symbol within, are the oldest and most important features. They are a development of pens and parks with their entrance reinforced by posts with a side buckle, probably to fix a crossbar, as we shall see when studying the stone and copper relief ornamentation of Tell El Obeid. The same buckled posts alone or in the hands of the mythical keepers of the gates, Gilgamesh and Enkidu, are the symbols of shrines seen on either side of enthroned gods like Siru the serpent god, Enki the god of waters, and Babbar the rising Sun god. The archaic representation of a bull crouched in front of a winged gate is likely connected with the Moon god of Ur, or Nin-ḫar-sag of Tell El Obeid. Later the buckled posts were confused with lances, especially in the case of the war god, or were replaced by colossal clubs.

At Tello the entrance was marked by huge brick pillars. From the beginning the sacred threshold and its pillars are a symbol of temple and shrine. They have a close relationship to the square and round fenced enclosures on the archaic Elamite reliefs, into which the primitive hunters forced wild animals to be captured. And the buttressed platform with ramp is not far from the wooden scaffold on which the old Elamites built their round mud granaries with an opening above to which a ladder gave access.

The sacred area at Tell El Obeid was enlarged probably by the kings of the Second Ur Dynasty. A new wall enclosed the whole of the hilltop where stood the original building of A-an-ni-pad-da. The hill was terraced with mud bricks of a square form and of a grey colour under which the old temple was buried 5 feet deep. In the retaining wall were used burnt bricks of the square model and marked with a finger print.

The scanty remains of the upper and last building have been identified with King Dungi of the Third Ur Dynasty, about B.C. 2250. In connection with this last builder it is interesting to recall that the Museum possesses, since 1888, a soapstone foundation tablet of his father Ur-Engur—CBS. 841—which may have been discovered at Tell El Obeid in the past and which records the reconstruction of the temple of Nin-ḫar-sag. In that case Tell El Obeid would be the old Sumerian city of Kesh, a fact of some consequence. The tablet reads as follows.

"To Nin-ḫar-sag, his Lady, has Ur-Engur, king of Ur, king of Sumer and Akkad, built Kesh, her favorite temple."

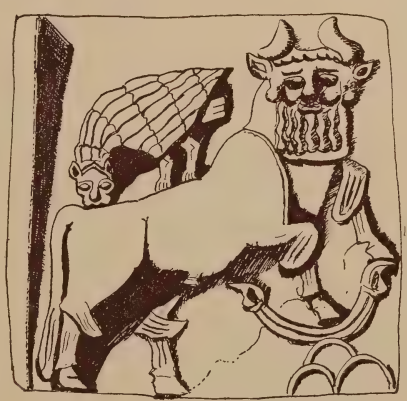
The temple of Kesh has a place apart in Sumerian literature. It is the temple of Nin-ḫar-sag, a goddess of mountains, probably of Elamite origin, a great goddess—Nin-Maḫ—like Ninlil, another mountain goddess, the mother of all fecundity under the name of Nin-tud, to whom bulls and cattle were especially dedicated in the dairy at Tell El Obeid. Her shrine is a symbol of white purity. But her connection with Elam, from which country were probably imported the first tamed bulls and cows, is most illuminating. We read that Rim-Sin the Elamite king, who about B.C. 1970 extended his power over the royal cities of Erech and Larsa, was proclaimed legitimate ruler of Sumer in the temple of Kesh.

A tablet from Nippur[1] is interesting in connection with the ornamentation of the Tell El Obeid old building, because it has a description of the temple of Kesh as known to the scribes of the Isin Dynasty about B.C. 2000. It forms a striking commentary on the design and decoration of the newly discovered building together with its mythological symbolism.

Hammurabi is the last king on record who showed interest in the temple of Kesh, about B.C. 1928. In the prologue of his code are mentioned his restoration of the enclosure and provisions for a rich food endowment.

[1] CBS. 14229.

A series of remarkable objects of art which decorated the walls and entrance of the old building of A-an-ni-pad-da, were recovered by the Expedition where they had fallen. They were embedded in the clay and covered with the layers of the new terrace, erected 6000 years ago. They consist of copper statues of bulls and lions in the round; copper reliefs of crouching bulls forming a frieze; stone or shell bas reliefs of all kinds of animals, bulls, bisons, eagles, ducks, ibexes, in cut pieces, fixed with copper wire on a wooden panel and inlaid in bitumen within a copper frame; there are also limestone plaques carved in low relief and incised fragments of shell. In the same connection were found sundry pieces like the gold scaraboid bead, stone vases inscribed or decorated with relief, mosaic columns and mosaic flowers, beams of palmwood covered with copper plates —in short a treasure house preserving for our enjoyment an amazing collection of early Sumerian art.



4.—Basrelief from Tell El Obeid.

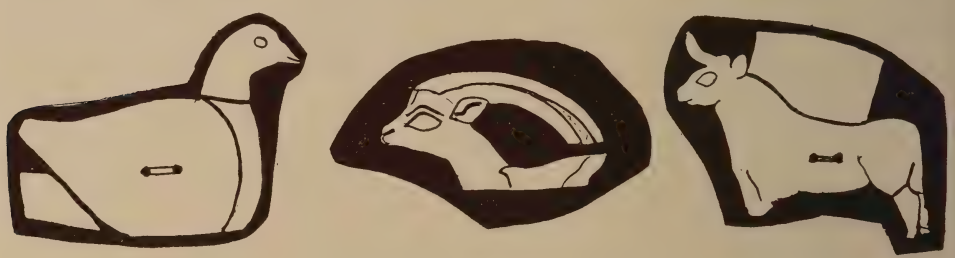
The smiths of Tell El Obeid were experts at casting metal. In their statues, the head is generally cast apart, and attached to the body of the animal formed of thin beaten copper plates nailed on a wooden core. The horns of the bulls were in some cases of gold, cast apart and attached by rivets. The eyes—of shell and bitumen—were inlaid. The bulls are over 2 feet high.

The copper basreliefs shown on page 7 of the March JOURNAL, form a variant of the same collection. The body of the bull is a beaten plate of copper nailed on the board. The head cast in the round is attached to the neck and stands boldly out facing the observer. The bull is represented crouched, one knee up, as ready to rise in a very effective and natural attitude.

One stone basrelief, No. 4, is carved out of one whole block or plaque. It represents a human headed bison in full run among the hills. A lion headed eagle has fastened its claws on the animal's hind quarters. The group is known from other Sumerian monuments. It forms a realistic coat of arms and its symbolism is not doubtful. The bison with long flowing beard, crescent horns, tufts of hair—a sign of strength—growing at the joints is an inhabitant

of the Elamite hills. The water buffalo with the rugged slanting horns is not represented before the time of Sargon of Agade, B.C. 2700. The lion headed eagle dominates the tame animals and seizes them in its talons. He is an emblem of the corral or park, the doors of which beat and open like wings.

The eagle is the animal sacred to Ningirsu the warrior of Enlil, god of thunder and lightning who inhabits the summit of the mountains, as the eagle is sacred to Jove in the Greek mythology. Very archaic cylinder seals represent antelopes, goats and ibexes, crouching in a park by a reed or wood construction or gate, and dominated by an eagle with spread wings which has seized them in its talons.



6.—Inlaid Fragments from Tell El Obeid.

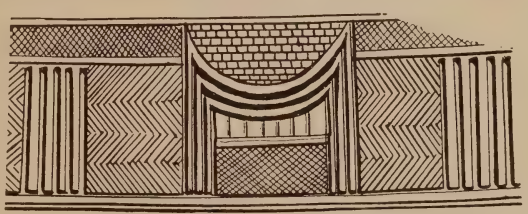
The basreliefs of cut pieces of shell and limestone inlaid in bitumen belong to a special technic of mosaic and inlay decoration to which may be traced later even Damaskeend steel. The black bitumen is both cement and effective background for the white stone design and genre composition. The inlay material included all kinds of precious metal and coloured shells and stones; alabaster, limestone, lapis lazuli, and mother of pearl being commonly used. Horns, ears, eyes, eyeballs, beard, locks of hair, checkered spots on the robe, or fancy decorations, were attached or inlaid in that way, as were also mitres, turbans and parts of dresses.

A long line of passing bulls[1] is the simplest form of relief, and a picture familiar and endearing to pastoral peoples. The abundance of cattle was a sign of prosperity. Ducks, geese, goats and ibexes belong to the same simple pastoral life, No. 6.

The finest basrelief is a charming pastoral scene which restores under our eyes a part of the active life at the dairy of Tell El Obeid.[2] On either side of a central reed byre typical Sumerians are milking

[1] See THE MUSEUM JOURNAL, March, 1924, p. 26.
[2] See THE MUSEUM JOURNAL, March, 1924, pp. 10, 11.

their cows and storing the precious liquid. The gate is the central motive of the panel. The reed construction is easily understood. The most remarkable features of the gate are the two buckled posts on either side of the entrance and the crescent decorating the upper part over the lintel. Two heifers are coming out of the byre which might as well be a shrine. The Moon god is called the young Bull of Heaven and the resemblance between the crescent, his emblem to the end of the Babylonian times, and the horns of the bull is obvious. The Bull of Heaven, a round relief on a shallow bowl of steatite from Ur, dating about B.C. 2300, has a white shell crescent inlaid between the horns.[1] A gate with crescents over the lintel is part of the geometrical designs decorating a still earlier steatite vase from Tello, No. 7. The checker lines, and herringbone constructions on either side are an imitation of wicker work. We learn from Strabo that the famous χαλαμῶνες of the marshes of Babylonia were plaited and bedaubed with bitumen to make waterproof vessels. But the interesting connection between pens and shrines, gates and buckled door posts will be better illustrated by a comparison with a few archaic pastoral scenes from Ur, Susa, Tello, Nippur, engraved on stone reliefs, plaques and seals, and scattered in various publications and museums. They derive a new light from the basreliefs of Tell El Obeid.

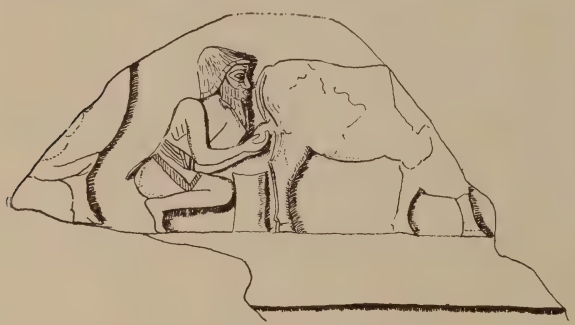


7.—Gate with Crescents.

Turn to an examination of the new Dairy Scene.[2] The milking scene on the right is remarkable. The position of the milking man behind and not at the side of the animal is quite unexpected. The calf is muzzled and attached by a rope to the neck of its mother, to prevent it from being suckled, and also to keep the animal quiet during the milking process. The milker is squatting, not resting apparently on any stool, and holding at the same time between his knees the pointed jar in which he collects the milk. The milkers of today, while not always using stools, are usually squatted or seated by the side of the animal when milking cows, but sheep and goats are commonly milked from behind. The almost invisible udder bespeaks an early age of farming, when long breeding had not yet developed the hanging teats which we associate

[1] See THE MUSEUM JOURNAL, March, 1924, pp. 4, 27.
[2] Ibid, pp. 10, 11.

in our minds with the image of the cow. The limestone basrelief of Ur, No. 8, interpreted first as the castration of a bull, is in reality a milking scene. The position of the milking man is identical. The milk pail with a flat bottom, the same that we shall find in many milking scenes, and in the hands or on the head of many worshipers, is resting on the ground. The same interpretation must apply to an Elamite seal impression, No. 9, with a scene of a goat arrested by two animals, fox, wolf or dog, and erroneously considered as humorous. It is in reality a milking scene. One of the animals holds the she goat by the beard and horns while the second is playing the milker. The flat bottomed pail is not missing, and the other square objects in the field may be more milk pails. The most interesting point is that we are transported to the animal world, characteristic of Elamite mythology, a divine fox or wolf milking a divine goat. We will find an echo of that early animal mythology in Sumerian texts of B.C. 2400. The Elamite mysterious fox or wolf is elsewhere represented as paddling a boat in the middle of the marshes, and a wild bison as throwing the arrows of lightning like another thunder god.



8.—Milking Scene from Ur.

Returning to the Dairy Scene from Tell El Obeid, the scene on the left shows the storage of the milk. The well balanced composition has a central active group between two secondary figures. Two are masters seated on cubic stools—or thrones *gish-gu-za*—with four legs and no backs, and two are servants standing and working. The milk is poured from the pointed jar through a funnel or strainer of very modern aspect, into a flat bottomed vessel resting on the ground. This latter vessel, which has perhaps three or four small legs, tapers toward a narrow mouth. Milk, butter, cheese, and many kinds of beverages besides beer, wine and oil of different brands and qualities are mentioned in the earliest inventory lists. The long pointed jar used for milking, and the flat bottomed vessel differ clearly from the two big jars to the right and

9.—Foxes Milking a Goat.

left of the central group. On one side a servant prepares one of those big jars. His hand and arm are thrust through the mouth of the vase as if busy cleaning it. The jar stands on its point. In the second case the jar has been filled and sealed and the second seated figure holds it, not on the point but lying on its side, while a rope fixed round the bulky vessel helps to handle it. Big jars with handles—perhaps rope handles—and also reclined on their sides, are represented on some rare Elamite seal impressions.

From a later period, that of Gudea, patesi of Lagash, about B.C. 2400, we borrow an interesting text describing the organization of the household of the patron god Ningirsu.

"In order to multiply the butter and the beverage—beer or buttermilk(?)—so that the serpent in the house of Ē-ninnu, the temple of Ningirsu, do not get away with the cream of the sacred goat, the goat which suckles the kid Lulimu, the mother of Ningirsu, he let En-lulimu, the shepherd of the Lulimu kid, take his place near Ningirsu under his order."

This is only one instance of a dairy attached to a temple. The role played by the animals, the serpent which steals the cream of the goat which is the mother of the god, has a strange flavour of the old Elamite mythology. Nin-ḫar-sag the goddess of Tell El Obeid was also a mother of gods and kings whom she nourished with her sacred milk. Another mother—we should say cow—goddess who played the same part at Lagash under the name of Gatumdug, presided over a regular farm including the following features.

"teams of bulls and their drivers, cows and calves and their cowboys, sheep and lambs, goats and kids and their shepherds, she asses and fillies and their drivers." Small and big cattle are always carefully distinguished and their keepers called by different names. The sign for cowboy is a picture of a cow pen, the sign of the shepherd is the stick, the whip, the pastoral scepter. Naturally the cow farmer is sedentary, while the owner of sheep and goats that feed on poor grass and clover in travelling large tracts of land, is a nomad. The cow farmer of Tell El Obeid is a shaven and shorn Sumerian, while the sheep and goat shepherds usually wear the short hair and beard of the Elamite or of the nomadic Semite.

At the time of the third Ur Dynasty, Drehem in the outskirts of Nippur, was a big farm, just like the farm of Gatumdug at Lagash, or the farm of Ninharsag at Tell El Obeid.

Besides her temple at Tell El-Obeid or Kesh, Ninharsag had temples in Girsu and in Umma, cities which are among the oldest Sumerian settlements. At Nippur she was identified with Ninlil. She was invoked in Elam by the patesi of Susa, Basha-Shushinak. She is one of the oldest Sumerian deities and her connection with Elam is significant. On the famous Stele of the Vultures and other early texts from Tello she has charge of pens and byres, the pure enclosures. The name of her place, Kesh, means also: protection of the divine enclosure. Another name of her shrine is the Solid Reed Construction, the Brilliant Grove. The shrine proper, built in the middle of a terrace, was graced with her statue seated on her magnificent throne of Majesty. Stone and metal vases were used for the ritual functions of her cult. Two doves placed in front of a slender vase with palm branches and bunches of dates were an acceptable offering. In the shrine within the limits of the temenos, she would deliver her oracles. She had a rich treasure house with silver and precious stones that tempted many a plunderer.

As a goat was the mother of the god Ningirsu, so perhaps was Ninharsag or Ninlil, the mother of the Moon god of Ur, a divine cow. The cultural and religious aspects of the Sumerian art point toward an early connection with Elam. Both obey the same inspiration and follow the same rules, which we may briefly sum again: a predominance of animal figures and natural scenery; few or no anthropomorphic representations of the gods; an untiring repetition of the same figure forming a frieze or procession; opposition of figures upside down or heraldic grouping on either side of a central motive; a combination of face and profile instead of true perspective.

But the Elamite is a passionate hunter of the wild animals of the hill land: goat, sheep, ibex, antelope, deer, gazelle, urochs, bison, boar and lion. The Sumerian of Tell El Obeid is the peaceful farmer concerned with his tame cattle. Their physical appearance is different. The Sumerian is shaven and shorn and wears only a sheepskin or woollen kilt. The Elamite has beard and hair, turban, cap and tunic. The most interesting contrast is found in the different representations of the gods. To Elamite imagination are due the composite monsters: bullman, lionman, birdman, scorpion-man, serpentman. The same forms have been adopted by the Sumerians, the best known being Enkidu, the bullman, companion of Gilgamesh. Also the dragons and griffins, animal composite monsters, are common to Sumer and Elam. But while the Elamite

deifies the animal and gives him a human attitude as throwing arrows, paddling a boat, milking a goat, in Sumer the god very soon divests himself of his animal form to assume the appearance of a king seated on a throne. The ancestor animal survives as his servant and emblem. Gilgamesh, the hunter, and the bullman Enkidu are the keepers of the gate of the park transformed into a shrine, and they hold the buckled posts. The serpent god with a human bust on a serpent coil is a witness of this gradual transformation. He was originally worshiped at Dêr on the border between Elam and Sumer. To the farmer industry of the Sumerian, the farming of animals and the tilling of the land, are due the beginnings of the great Babylonian civilisation. Sacred temenos and walled cities go back to fenced pens and parks.

In connection with the Sumerian art of Tell El Obeid a few known monuments are here reproduced anew with a short description.

10.—Sumeanir Shepherds and their Dog.

No. 10.—Sumerian shepherds and their dog(?). They are perhaps worshippers in a procession. They carry a stick and a palm(?). The pointed jar with a spout is of a very archaic type, a symbol of liquid offering. They are shaven and shorn. One figure seems to wear a turban. Their only garment is the sheepskin or woollen kilt. Long straight nose and small chin are truly Sumerian. Tell El Obeid relief on a fragment of large limestone vase or basin, the *bur-maḫ* of the texts.

11.—Fragment of a Dairy Scene.

No. 11.—Fragment of a dairy scene(?). A seated figure and a reed construction. Two pointed jars suggest milk and cream. Impression on a clay sealing from Nippur.

No. 12.—Two primitive Sumerian gods partaking of some ceremonial feast. The gate with the buckled posts is the symbol of the shrine. Archaic cylinder seal reproduced from W. H. Ward.

12.

No. 13.—The hero Gilgamesh holding the two buckled posts. He is the traditional keeper of the shrine's gate. He is a famous hunter like Nimrod, a king of Erech of the many enclosures, and a builder of its great wall according to a tablet in the Museum collections. He is here represented in front face with long hair and beard and naked as engraved on a mother of pearl plaque from Tello.

13.

No. 14.—The god of water in his shrine and a kneeling Gilgamesh keeper of the buckled post of the gate. Seal cylinder of the Brussels Museum published by L. Speleers.

14.

No. 15.—The god of water Ea holding the spouting vase and a kneeling Gilgamesh holding the buckled post of the shrine. Seal cylinder in the Museum Collections, CBS. 5058.

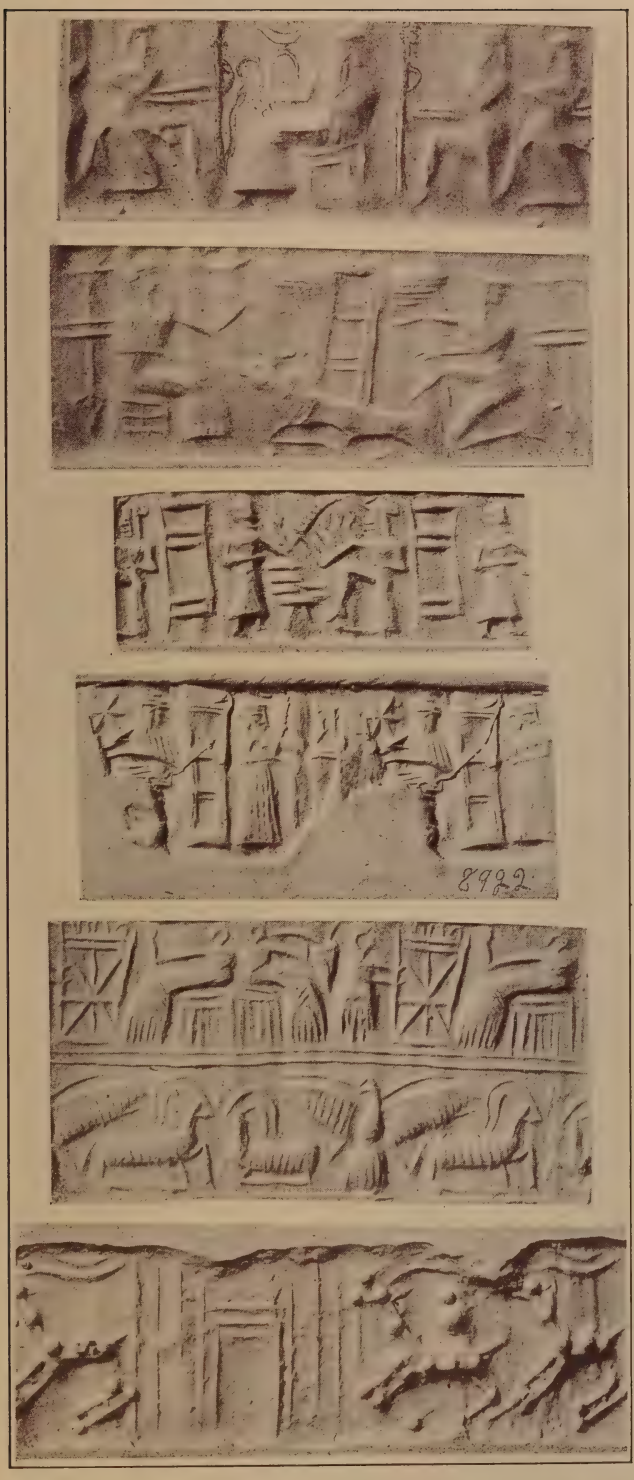
No. 16.—A goddess seated, perhaps Ninharsag, holding the extremity of a rope which is attached to a winged gate. A kneeling Gilgamesh holds the other end of the rope, and makes sure the closing of the gate. A crouching bull completes the picture of a pen like the byre of Tell El Obeid. Crescent and sun star mark the evening and morning. Seal cylinder in the Museum Collections, CBS. 5003.

The seal of Basha-Enzu, the first king of the IVth Kish Dynasty, about B.C. 2992, who carries the title of never failing husbandman of Ur, has also the symbol of the passing bull, an emblem of the Moon god, the young bull of heaven. Seal cylinder in the Museum Collections. CBS. 5005. Cf. MUSEUM JOURNAL, March, 1922, pp. 60–65.

No. 17.—The Sun god Babbar with flaming wings and notched sword rises in the morning over the mountains of the East. In front of him there is a worshiper and a pile of cakes on an offering table. A gate is a symbol of the shrine. Seal cylinder in the Museum Collections. CBS. 3790.

No. 18.—The serpent god on a rare shell cylinder unfortunately broken. The human bust rests on a coil partly visible. In front of him a worshiper pours a libation. Three branches arise from a huge vase or hourglass shaped altar between. A gate is the symbol of the shrine. Star and crescent mark the evening and morning. Seal cylinder in the Museum Collections. CBS. 8922.

No. 19.—Two archaic Sumerian gods seated on ancient thrones drink through a pipe out of a pointed jar. A priest or door keeper



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holds one post of the gate. Their style makes them contemporaries of the Tell El Obeid reliefs. The lower register with the spread eagle seizing in its talons two crouched goats is the vivid symbol of the penfold. Seal cylinder in the Museum Collections. CBS. 5008.

No. 20.—Two antelopes and a reed construction symbol of the park. Seal cylinder in the Museum Collections. CBS. 14395.

21.—Emblem of the War God Enlil.

No. 21.—Clay relief, front part of a chariot protecting the driver from the dust and horse's kick. The relief represents the emblem of the war god Ninil, a club between two lions' heads, standing between two buckled lances, a symbol of the shrine very appropriate on a war chariot. Nippur collection in the Museum. CBS. 15397. A more complete relief in the Yale Babylonian Collection shows the same buckled lances derived from the buckled posts in the hands of two Gilgameshes on either side of a gate surmounted by a crouching bull. Moon and star and passing birds complete the symbolism of the shrine.

No. 22.—A terracotta shrine with a little statue of a god from Nippur. The bearded god with a turban, one hand covered by the folds of his shawl, the other raised to his mouth, is in no way characteristic and probably belongs to a late period, but the two lances on either side of the entrance and the symbol above are in

22.—Shrine containing a Figure of a God. Miniature, modeled in Clay.

keeping with the oldest tradition. The twelve lumps of clay suggest a boss knob or rosette decoration. CBS. 15396.

No. 23.—A piece of shell with an engraving representing the hind quarter of a crouching bull of the same type as the copper bull of Tell El Obeid. It is a piece cut for inlay decoration. Nippur Collection. CBS. 2493.

23, 24, 25.—Below, part of a Shell Inlay showing the hind quarters of a bull (23). Above, the backs of two Seals in Shell and Marble (24 and 25).

No. 24.—Flat seal of red marble with the convex back representing a lion's head. The eyes were inlaid. The flat side has 3 lions engraved in the hollow. Museum Collections. CBS. 14537.

No. 25.—Same type in white marble. CBS. 14538.

26.—Pastoral Scene.

No. 26.—The most interesting pastoral scenes are found on a few rare cylinder seals. They are reproduced from W. H. Ward—Seal Cylinders of Western Asia, Figs. 391 to 398. They have much in common with the dairy scene of Tell El Obeid. But in a purely naturalistic scene, they very soon introduce a mythological element and the god in human form with scepter and horned mitre. The shepherds of the seals are not concerned with cows and calves, but with goats and sheep. The goats with spiral horns march in front, followed by the sheep with the curved horns. Here like on the Tell El Obeid relief we see them leaving the pen. On the famous La Haye Cylinder the reed hut and the gate are precisely the same with the two buckled posts on either side. One of the goats is being milked from behind while a second shepherd keeps it quiet. A pointed jar full of milk lies also on its side in front of a seated shepherd. The new elements in the scene are the introduction of the typical shepherd's dog sitting and watchful, the stick and whip of the shepherd driving or leading his flock, and the kneeling figure disposing of the newly made cheese on a reed wattle. The charming realism of the goat with the bent neck, or scratching its back with its horn, while two kids fight front to front, make this seal a unique piece. All figures are bearded and the name of the owner in cuneiform character reads:

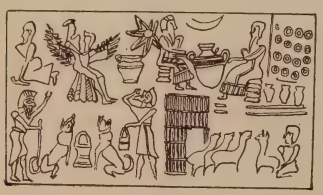
En-he-gúr, shepherd.

No. 27.—The Brussels cylinder is only a duplicate in "argile bitumée" of the La Haye seal.

27.—Pastoral Scene.

Nos. 28 to 34.—These cylinder seals add to the dairy scene the mythological element of the shepherd Etana carried to heaven like Ganymede on the pinions of the eagle. The subject has been

carefully studied by W. H. Ward in the chapter on Etana and the Eagle. The relief of Tell El Obeid throws a new light on some details of the scene, like the big pointed jar between the two seated figures. It probably contains the supply of milk—or buttermilk(?). The rope around the bulky vase develops in two handles.



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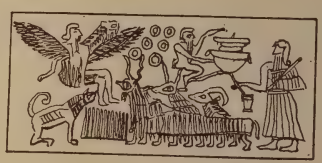

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In one case the jar still lies on its side. The milking pail of the shepherd has curved sides, a flat bottom, and is carried by a rope attached to the rim. There are some other smaller pots. The display of newly made cheeses on the square wattle is never missing, and the kneeling figure indicates their position on the ground. The bearded shepherds use stick and whip. The crescent and star mark

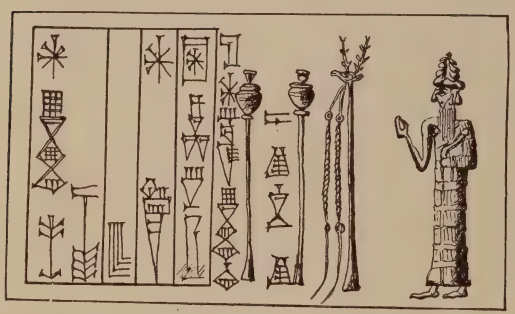
the moments of some ritual offering. When the shepherd approaches a seated god, the reed pen takes the appearance of a shrine gate.

No. 35.—The goat and sheep on the limestone plaque from Nippur, a votive offering of the great merchant Ur-Enlil, takes a new significance when compared with the dairy scenes. The animals are driven not by bearded shepherds but by shaven and shorn

35.—Limestone Tablet found at Nippur. It commemorates an offering made by the great merchant Ur-Enlil to the gods.

Sumerians, probably servants of the temple. One is armed with a stick, the other carries on his head the milk pail. In the upper register the naked Sumerian servant priest offers to the seated god a cup of the drink, water or some liquor, milk or buttermilk. The gods are bearded male deities. Their seats and their horned crowns decorated with feathers and a central piece in form of a bull's head, are very archaic. The plaque is devoted to a female deity, Ninni-Edin, the goddess of Eden. This apparent contradiction, also found

in the warrior god of Lagash, called the Lady of Girsu, might be best explained by supposing that the great Lady of Eden was originally worshiped under an animal form of a goat. A goat was the mother of Ningirsu.



36.—A Seal Cylinder. The God, King of Eden, stands before his emblem, a colossal whip surmounted by a deer's head.

No. 36.—The god, king of Eden, the counterpart of Ninni-Edin, is probably represented on a curious seal of Lagash, by his emblem, a colossal whip with a double thong surmounted by a deer head, between two clubs which replace the buckled door posts. The god himself, with horned mitre and beard and a scepter in hand, stands behind his emblem. He is a shepherd god driving the cattle in the plain. He seems in charge of the she asses. The inscription reads as follows.

[d]Edin-mugi, minister of the divine she asses of reproduction(?).
Ur [d]Lugal-edin-na, the medicine man is thy servant.

There are pastors of asses called sib anshu-ama-gàn; sib ama-gàn-ša. Perhaps instead of anshu, ass, it would be better to translate lulimu, doe, which would agree with the decoration of the whip, and answer to the divine shepherd En-lulim of the Gudea text.

No. 37.—A clay relief from Tello represents En-lulim, the shepherd of Ningirsu, armed with the whip and seated on a sheep.

37.—En-lulim the Shepherd of Ningirsu.

In brief the Tell El Obeid reliefs and other works of art seem to bridge over the gap between the Pre-Sargonic and the Pre-Elamite Periods. Remains of the same type have indeed been discovered by the French at Susa, Tape-Mussian and Bandar-Buchir. The Pre-Elamite Period represented by the painted vases and engraved seals seems to be the oldest of all. But the Tell El Obeid period, while not so primitive, is through its naturalistic scenery and absence of human figuration of the gods, to be set apart and before the Pre-Sargonic Period. The new period of art may be called by the name of Tell El Obeid or of the First Ur Dynasty.

THE CHURCH AT BEISAN

Discoveries by the Expedition to Palestine

By Clarence S. Fisher

In the Journal for December, 1923, Dr. Fisher described the excavations at Beisan. The present article has particular reference to that part of the excavations that had to do with the early Christian Church on that site. That Church, built in the early part of the fourth century, is the oldest Christian Church that has ever been brought to light by excavation in the East. It presents many interesting features and gives clear indications of the architecture and decoration of Eastern churches at that early period. Among the interesting details recovered during the excavation are the fine mosaic pavements, now in the University Museum and the mosaic pictures on the walls, the existence of which is proved by quantities of small tesserae in colours and gold indicating walls covered with mosaic decorations on a gold ground that imparted to them the same splendour that characterizes the later churches at Constantinople, Salonica and Ravenna built during the sixth century. The ruins of this early sanctuary also show clearly the transition from the Basilica to the Round, and there is evidence that there were extensive ecclesiastical buildings grouped about the Church.

SCYTHOPOLIS, as Beisan was called during the Classical period, was, in the beginning of the Christian era, at the height of its prosperity and grandeur. Lying in the midst of a well watered fertile region, one of the most productive in Palestine, it had amassed great wealth, and because of this and its dominating position at the centre of the chief arteries of trade between east and west, it had become the chief city of the Decapolis. In population it exceeded Jerusalem and was noted for the number and magnificence of its public buildings. Furthermore, it was one of the great centres of Greek Classical culture in the East. On the summit of its acropolis was the great temple of Dionysius, whose cult, with that of Astarte, held undisputed sway throughout the northern Jordan valley. Indeed Scythopolis laid claim to being the birthplace of the god, for which honor there were, however, many other claimants.

Some Biblical authorities identify Bethabara, the scene of the Lord's baptism, with a ford of the Jordan, only a few miles northeast of the city. Whether this is correct or not the town must have been familiar to Him and His disciples, and they may often have

Mosaic pavement of early basilica on summit.

passed through its streets on their journeys to and from Galilee. The details of their lives would have formed one of the exciting topics of conversation in the local market. Yet pagan influences were so deeply rooted that Scythopolis was one of the last great Palestinian cities to give a home to Christianity. Besides the Greek and Roman people there had been for several centuries a strong Jewish element, which had from time to time played an important part in its history. For example, in the year 107 B. C. they had been so powerful that they were able to hand the city over to John Hyrcanus. Again as late as 65 A. D. they took sides with their pagan fellow citizens in defending the city against the attacks of bands of their own countrymen who were roving through the country during the rebellion against Roman rule. This act of loyalty does not seem to have influenced the friendliness of the townspeople towards them, for shortly afterwards they enticed the Jewish population outside the walls and treacherously massacred some 13,000 of them.

It is not likely that Christianity obtained much foothold in Scythopolis until the end of the second century. Under the emperor Diocletian (245–313), the faithful suffered severely in the persecutions which he instituted as a political measure throughout the empire, and numbers were slaughtered in the theatre of Scythopolis. This building stood just below the southern slope of the acropolis and although now badly ruined is still one of the best examples of Classical buildings on this side of the Jordan. Towards the end of this period, Procopius, a native of Jerusalem, was made lector and exorcist of the local Christians, and shortly after Patrophilus was elected their first bishop. After the end of the persecutions and most probably because of them, the new religion spread rapidly, and during the ensuing fifty years became the dominating force in Scythopolis. In the year 318 the city was of such importance that its bishop, Patrophilus, was sent to attend the council held in Palestine, and seven years later to that famous one at Nicaea, the first general council of the Christian church. Eusebius was exiled to Scythopolis in 355, by the emperor Constantius II for refusing to take part in the condemnation of Athanasius. While here he met Gaudentius, bishop of Novara, and also Epiphanius. Under the influence of these men, who gathered around them groups of students and adherents, the city became a great monastic centre, and produced from time to time men famous in the annals of the church, among them St. Basil and St. Cyril..

Detail of the mosaic shown on page 172. Now in the University Museum.

At this time the central hill, or acropolis of the city, had approximately the size, shape and appearance that it now has. Many centuries of building and destruction had formed upon the original rocky eminence an enormous accumulation of debris. The broad terrace some 90 feet below the top, which is the distinguishing feature of the hill, was already in existence in the Roman period. Three of the sides were precipitous and access to the top was practicable only on the west and here throughout all the different periods, had been the entrance to the upper town. In the Greek and Roman occupations a finely built gateway had existed at the northwest corner of the terrace, and from it a broad roadway paved with regular blocks of basalt had wound up the gentle northern slope to the great temple on the summit. It remained only for the Christian builders to adapt this great artificial platform to their own structures.

Not until after the reign of Diocletian could the Christians have been strong enough to usurp the site of the pagan temple, and it is more than probable that it was under the leadership of Patrophilus that the monuments of his faith began to displace those of its pagan predecessor. We may give to him the credit of preparing the way for the new church even if he did not supervise its actual construction. It was placed on the summit of the hill whence it overlooked the entire city and formed a landmark for miles to the northwest up the valley of Jezreel and for long distances up and down the Jordan valley on the east. Practically the whole of the old pagan temple was razed to the ground, only a small portion of its foundations remaining along the west where they were buried under the new masonry of the church. Much of the old material was broken up into smaller building stones for the walls, and the great drums of the columns and their huge Corinthian capitals which could not be easily utilized were used as filling material for the platform on which the church was to stand. This platform was raised six to eight feet above the preceding level and was made with earth and debris taken from any available spot, so that we found it filled with pottery and other objects of many different periods mixed together. The old roadway served for the new approach, some slight alterations at its upper end being necessary to make it conform to the new plan.

The church was built in the regular Roman basilica form, a long rectangular building containing a central nave and side aisles. Across the western facade extended a greater narthex or vestibule and at the east end a small semicircular apse contained the high altar. The

Bronze knocker from door of the great Fourth Century Church on the summit. Now in the University Museum.

floor of the vestibule was covered with red and white marble squares, enclosed within a border of plain brown stone. The central nave appears to have had a similar floor, but consisting of white marble only. The two side aisles on the other hand had elaborate pavements of colored mosaic, of which only a small broken fragment remained at the western end of the southern aisle Here the pattern consisted of large diagonal panels bordered with scrolls and containing bowls or jars filled with conventional flowers. At either end of the main vestibule were small chambers with mosaic floors, that on the north having a well balanced design of large and small interlacing circles inside an elaborate scroll border Other rooms on either side of the apse had colored marble floors like that in the western vestibule. All through the debris were found quantities of delicately colored glass mosaic, and many tesserae with gilded surfaces. These could only have been used on the walls and while the latter were entirely destroyed, we may picture them as originally covered with Biblical scenes worked out in color on a golden ground. The interior of the building was further embellished with rows of green and white marble columns, the precise arrangement of which cannot be determined as they were reused later in a reconstruction of the church. The space in front of the altar was enclosed with a marble rail, composed of panels of thin slabs between round topped square posts. The faces of the panels were decorated with wreaths and crosses. Some of the fittings of the church were discovered in the houses of the lower terrace where they had been taken during the destruction of the church. Both of the great bronze knockers of the main door were found, finely modelled lion heads holding heavy rings in their jaws. Also several of the bronze frames for the ceiling lamps, and a small stand lamp presumably from the altar. The roof was constructed of wooden beams supporting planking on which were laid flat terracotta tiles, numbers of which were found all over the area.

The entire upper hill was enclosed with a heavy masonry wall, starting at the northwest gate on the lower terrace and following closely the contour of the hill. The whole area between this wall and the church on the summit was filled with closely grouped buildings, some of them obviously large storehouses or stables, while others contained portions of fine old floorings of marble and of mosaic. It may be that the entire acropolis was reserved for a great ecclesiastical complex, containing some at least of the monastic

Part of the circular church on the summit.

The East Terrace, the site of the Bishop's House, looking from the Summit. Below is the Valley of the Jalud.

buildings, the residences of the higher church dignitaries and the buildings in which were stored the tithes and the supplies for the various establishments.

Within the church and just north of the altar we discovered an empty tomb, built of masonry and plastered with gray cement. It is tempting to presume that this represented the resting place of Patrophilus, the first bishop and the founder of the church, as it is the most natural place for him to have been buried. Only one other burial was found within the limits of the summit of this period and that was obviously of much later date. The first church must have been completed before or just after the death of Patrophilus. In the year 361, under the emperor Julian another series of persecutions of Christians throughout the empire was inaugurated. Scythopolis suffered heavily. The mob, who had perhaps some feeling of vengeance for the use of their former temple site as a Christian shrine, looted and burned the sacred edifice and at the same time desecrated the tomb of Patrophilus, scattering his bones and using his skull as a lamp. Just how complete the destruction was must remain a matter for speculation but the marble and mosaic pavements suffered severely not only from the intense heat of the burning roof beams which had fallen in on the floor but from deep indentations made by portions of the heavy masonry falling upon them. Still further portions of the walls may have been overthrown during a violent earthquake the following year, which the Christians attributed to Julian's attempt to restore the Jewish temple in Jerusalem.

After these violences came a quick reaction. The church prospered and became within the next few years stronger than ever before. The commanding position and natural wealth of the city still tended to give it a leading place amongst the cities of the country, and it shortly became one of the centres of the faith and noted for its many imposing churches. No doubt the restoration of the great church on the summit was one of the first works undertaken. At this time the old basilica form of church was rapidly being superseded by the circular plan borrowed from the East, and practically all the churches of the late fifth and early sixth centuries in Palestine and Syria were built under this influence. Therefore it was not surprising to find the second edifice on the acropolis at Scythopolis having as its main feature a large circular rotunda which took the place of the former nave. Certain features of the first building were retained in the new structure, as for the example the western vestibule or narthex

and the apse. The narthex seems to have suffered least from the fire and earthquake, and even its floor does not seem to have required much restoration. The rotunda was laid out so as to fit in between the vestibule and the apse, and is for the most part a fair piece of engineering. It is significant that in laying out the circle, great care was taken that the new foundations of the rotunda did not cut across the tomb which lay to the north of the altar and directly in line with the new masonry. The adjustment of the circle to the tomb caused a slight flattening on the western side where it adjoined the walls of the vestibule. Surely there was some special holiness about the tomb which the restorers of the church took special pains to respect. Whether the bones of Patrophilus were ever collected and replaced in the tomb we cannot say. When found the tomb was empty and had probably again been ransacked when the town fell into the hands of the Arab invaders two hundred years afterwards.

The rotunda had two concentric walls, the outer forming the main enclosing wall and the inner, of somewhat slighter construction, carrying a part of the weight of a thin dome covered on the exterior with a wooden or tiled roof. This inner wall was pierced with four large openings, each subdivided into three by two of the old marble columns. All of the latter were reused except two which had been so damaged when they fell that they were left lying and embedded in the new foundations. The rotunda was paved with fragments of the old marble flooring badly fitted together, and the encircling aisle opposite the narthex had a mosaic floor of simple pattern, rude squares with small crosses in the centres. For the remainder of its length it had a pavement of small marble tiles like those in the previous building. The lower part of the walls were faced with a veneer of thin marble slabs, and above these the walls appear to have been simply plastered and painted. The entire reconstruction appears to have been done with old materials and workmanship and decoration throughout was on a simpler and less expensive scale. Apart from this and the change in plan, the distinguishing feature of the second church was the entire absence of evidences of burning. It is therefore quite certain that the building remained intact until the year 631, when the Byzantine power in Syria and Palestine collapsed under the vigorous onslaughts of the Arab hosts. Even then the church probably was not dismantled but was used, according to the custom of the early Moslems, as a mosque, such of its decorations as were objectionable to them being merely painted out or covered

The Bishop's House on the East Terrace being uncovered.

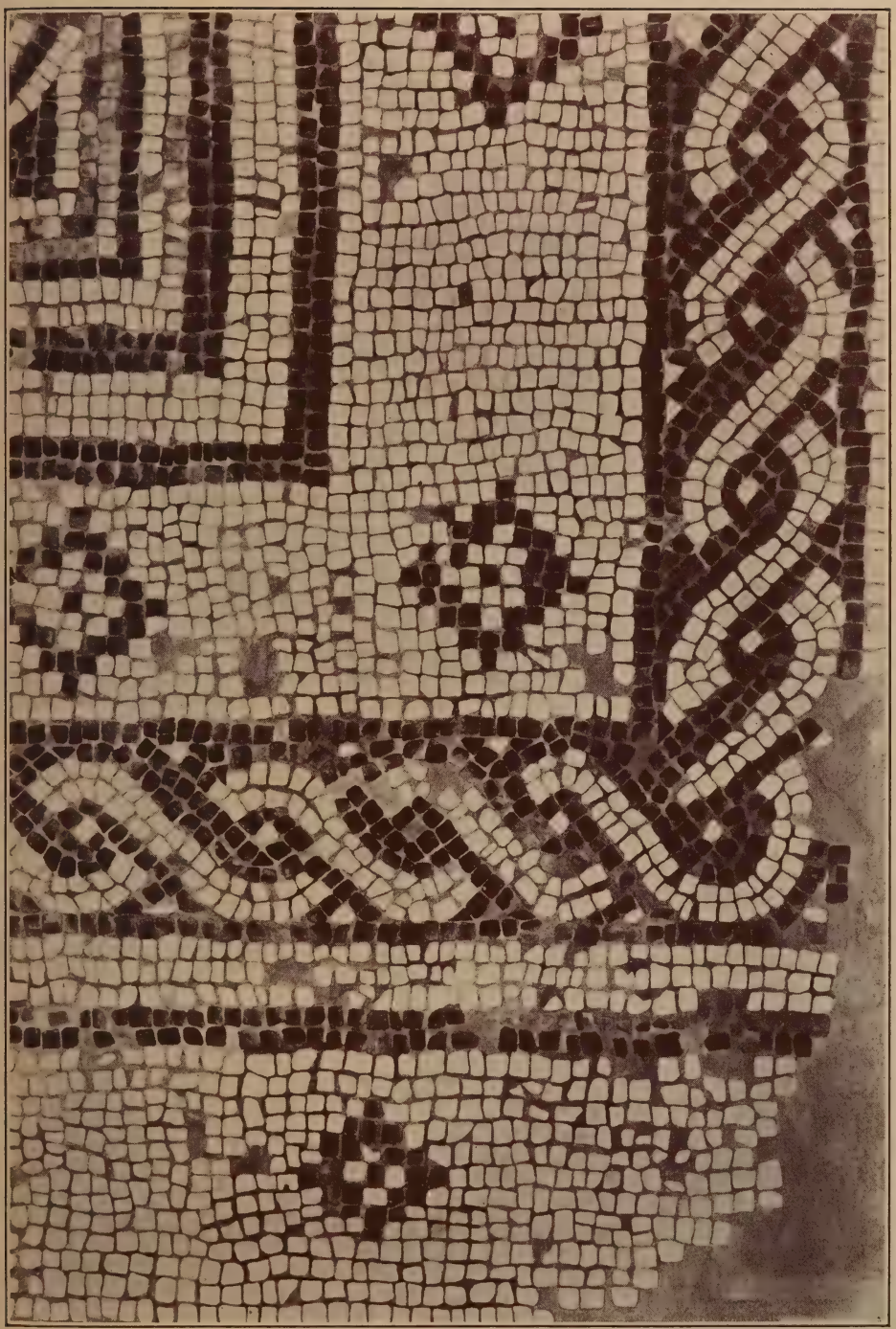
The Bishop's garden in the corner of the East Terrace.

with whitewash. During their use of the building certain persons scratched their names upon the marble floor.

The valley of the Jordan was visited during the succeeding years by many earthquakes, some of them of extreme destructiveness and the building gradually fell into ruin. As early as the end of the eighth century all the marble columns were prostrate, as several Cufic inscriptions were found on them, evidently written when they were lying on the ground.

Among the buildings on the lower terrace, one deserves special mention. We have already seen how the main paved roadway starting from the gate, curved up the north slope to the summit. At the point where it made the first turn southward from the line of the entrance, a smaller street opened off from it, and this was the thoroughfare which gave access to the houses on the lower terrace. Near the gate this was bordered by several storehouses uniform in plan and some buildings with badly broken portions of mosaics. The road rose at a slight incline as it wound around the eastern terrace. Here the outer wall had enclosed a much wider area than now exists. Owing to the steepness of the slope and the insecurity of its foundations it had given away and fallen down the slope, carrying with it portions of the houses. The later Arab enclosing wall which still remains was built on the edge of the terrace as they found it, well inside the older line and it therefore cut away still more of the Byzantine rooms. The Arabs utilized for their own houses much of the earlier masonry, so that the house plans of the preceding period are rather incomplete. It was clear however that the buildings lying between the lane and the terrace edge were as a rule below the level of the roadway and were entered down two or more steps, while the floors of those lying inside at the foot of the upper slope were above this level. At several places were small paved side passages or alleys leading to houses on higher levels.

The narrow lane ended at the gateway of a house of greater size and obviously more importance than any of the buildings bordering the lane. This building and its dependencies occupied the southeast corner of the upper town extending the full width of the east terrace and nearly 150 feet of its length. Of this area about one third was given up to the house itself and the remainder to a large garden. The fine position of this building, easily the best on the entire site, its size and regularity of construction and especially its beautiful



Part of a mosaic floor from a room east of the loggia, in the Bishop's House.
Now in the University Museum.

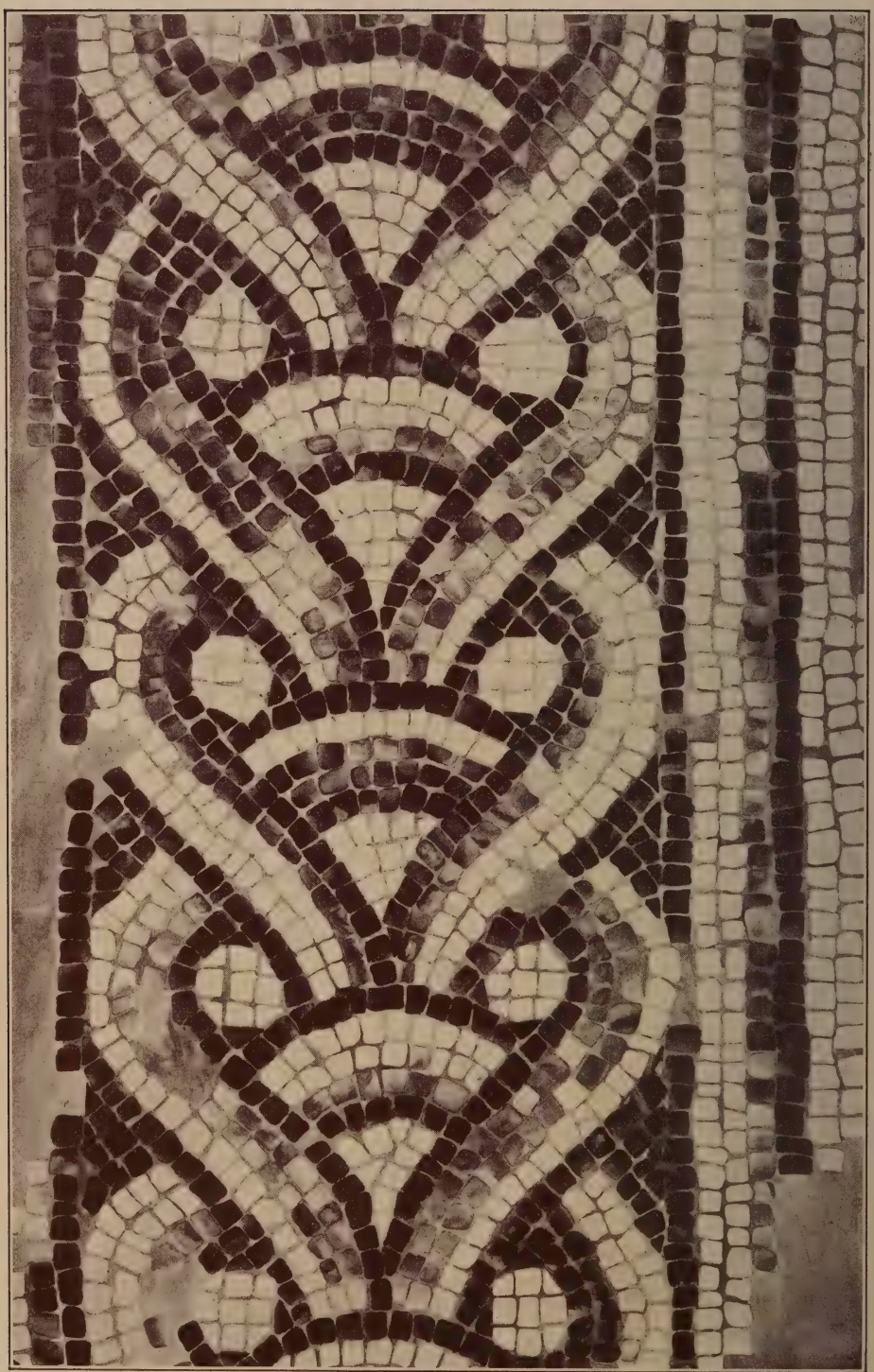
A portion of the main pattern of the mosaic pavement of a room in the Bishop's House, the same as shown on page 185. Now in the University Museum.

mosaic floors indicated that it was certainly the residence of a most important official and I have called it the Bishop's House.

The walls were of rubble masonry, probably decorated with stucco on which were richly colored scenes, but as the walls were denuded down to a single course, all details of these were lost. Fortunately considerable portions of the mosaic floor still remained and the more desirable pieces have been removed to the University Museum.

The central feature of the plan was a large rectangular court paved with coarse plain white tesserae, without pattern or border. On the east side was a loggia or portico with either two columns or piers for which only the square plinth blocks remained. The floor of the loggia was laid with mosaic consisting of a white ground divided into regular squares with bands of red and yellow. Each square contained a small cross in the centre and the border was quite plain. To the east of the loggia were the corners of two large apartments each with an elaborate patterned floor. Only portions near the wall remained, the rest having vanished during the landslip. In one the field apparently was made up of small and large interlacing circles, enclosed with a scroll border, closely following the pattern in a room of the early basilica on the summit of the hill. The other chamber had a Greek fret border. These motifs were all carried out in deep orange, red and dark gray tesserae, on a plain white ground.

To the south of the court was what may have been the largest and most important chamber in the house. A small door led from it directly into the court, which doubtless had been filled with pleasant greenery, fruit trees and flowers, kept well watered from a deep cistern near the outer wall. The chamber floor was done in mosaic with rather conventional flowers, growing out of jars and with beribboned doves flying between them. While of the simplest design and done only in three colors, the floor was quite attractive. The border was especially elaborate, a series of loops developing one from within the other, forming a chain. The pattern was identical with one discovered in the ruins of an old church excavated on the top of Mount Tabor near Nazareth, and now preserved in the Museum of the Franciscan convent in the latter town. Another room to the east of this and adjoining the loggia was badly wrecked by the collapse of the ceiling and upper walls, the falling stones having made great hollows in the delicate mosaic. The pattern



Border of the mosaic floor from a room in the Bishop's House. Now in the University Museum

resembled one very common in our modern tiled floors and linoleums, octagons arranged side by side in rows so as to leave small square between them.

The style of these mosaics placed them in the fourth century, and the building therefore was probably erected at the same time as the first great church on the summit. When the latter was burned in the riots of 361 A.D. the Bishop's House may also have been destroyed, as large areas of the mosaics were burned and disintegrated to a depth of an eighth of an inch.

As I have said, this residence occupied one of the most delightful parts of the city. It lay under the steep eastern slope of the summit, it was sheltered from the severe gales that sweep down the Valley of Jezreel from the Mediterranean during the winter, and in the summer, the towering mass of the church above partly sheltered it from the heat of the afternoon sun. It was at the extreme corner of the hill and from the parapet around the garden one could have looked over the rich green of the orchards far below, bordering the Jalûd and its sister stream that partly encircled the hill. Beyond the low enclosing hills of the city cemetery, the undulating valley of the Jordan was visible for miles, dotted with the numerous smaller towns that owed their existence to the great metropolis towering above them. Here and there the twisting channel of the Jordan itself could be glimpsed where the sunlight glistened upon the water. Still farther away, the lofty green covered ramparts of the land of Moab formed a continuous background, and at the foot of them, towards the southeast, clearly visible, lay the great rival city of Pella.

It was a peaceful spot. The turmoil and bustle of the crowded city streets were all on the opposite side of the hill. Owing to the impregnability of this quarter all attacks upon the town came from the west, and here too, on the great plain beyond the western walls, took place the many struggles for the possession of the town and its rich environs, and the sound of them would scarcely penetrate to this secluded dwelling.

AFRICAN CUPS EMBODYING HUMAN FORMS

By H. U. Hall

I

AMONG a number of small bronze objects in the University Museum, hitherto unpublished, from the old kingdom of Benin in the British dependency of Southern Nigeria is a fine casket or covered cup belonging to the later period of artistic Bini workmanship, when there had taken place a reversion from foreign influences of the sixteenth century to older negro conventions of style.[1] This interesting vessel is illustrated here [Figs. 1 and 2] together with several wooden cups from the Southwestern Congo [Figs. 3–20], the products of a group of Bantu tribes famous for their artistry in woodcarving. In all cases the cups are either in the form of human heads or bear such heads as a leading feature of their decoration.

The Congo examples are household utensils, chiefs' drinking cups, with the exception of that shown in Figs. 5 and 6, which is said to have been used in the poison ordeal, a device for the detection of crime common to both of the regions with which we are here concerned. The use of the Benin cup is unknown, but reference to other Bini vessels which were probably or certainly used in ceremonies or ritual may serve to suggest some possibilities as to the manner of its employment.

In the majority of cases in which the human form is given to objects of bronze made by Bini craftsmen, or in which it is applied to the decoration of such objects, these had a fetish or ritual or ceremonial purpose. We have therefore some ground for assuming that this cup was put to a formal or religious use.

Receptacles of various kinds are shown in the hands of the figures on many of the bronze panels or plaques which form the most numerous class of objects representative of Bini works of art in metal. One of these plaques in the University Museum[2] shows a court functionary presenting a vessel somewhat resembling a

[1] Museum Journal, Vol. XIII, p. 153.

[2] Loc. cit., fig. 46.

quoit in shape and not unlike a cast metal bowl figured in General Pitt-Rivers's *Antique Works of Art from Benin*, Plate XLIX, Fig. 387. Several of the fine series of plaques in the British Museum record similar scenes. One of these, Fig. 3, Plate XXI, in *Antiquities from Benin*, by C. H. Read and O. M. Dalton, has a central figure in the leopard skin coat of a warrior, holding a cup with both hands. He is flanked by two other figures holding swords and wands. The ceremonial character of this group is clearly indicated by the last feature.[1] We are told by a Dutch traveller of the late 16th century, known only by the initials D. R., under which his observations occur in De Marees' *Description of Guinea*, published in 1602,[2] that "the king often sends out presents of food, which is all carried in good order through the streets. So also when the aforenamed things are borne, the bearers go all one behind another, and at the same time one or two go always beside them with a white wand, so that every one, were he even a nobleman, must yield and give way before them."

Of the other examples in Read and Dalton's work of what is evidently a similar ceremonial conveying or a presentation, perhaps votive or sacrificial, of food or drink, represented in the same series of plaques, the most striking are as follows.

Plate XXVIII, Fig. 1: Two figures "hold in both hands an oviform object in a bowl." The third figure on this plaque holds "a covered globular vessel with a foot." Fig. 2: Each of three figures "holds with both hands a vessel . . . . one a small jug, another a shallow bowl, the third a vessel with two handles and two projections." Fig. 5: One of three figures carries a vessel like that of the third personage in Fig. 1.

That some at least of these ceremonially carried objects had also a ritual or fetish significance is suggested by the "oviform object" just mentioned, if the latter may be connected with what is known of the use of eggs in the Benin country.

In the Edo villages, i. e., in the villages formerly subject to the king of Benin, the youths, after taking part in funeral ceremonies, "before they go [home] . . . purify themselves with half an egg . . . given them by the sons [of the deceased], which they pass round their heads, holding it by means of a piece of palm-leaf inserted in

[1] JOURNAL, fig. 49 and pp. 129 and 168.

[2] Quoted by J. Marquart, Die Benin-Sammlung des Reichsmuseums fur Völkerkunde in Leiden, Leiden, 1913. P. XIV.

1 2

Two Views of a Bronze Cup or Casket from Benin.

a small hole. This ceremony is called *iho m egbe* (ban, come out of my body)....."[1]

What is here evidently a kind of magico-religious catharsis or ritual purification from a ban or taboo contracted through contact with a corpse has its more purely magical parallel in the power of eggs to free one from an, at least partly, physical embarrassment. "A person accused of witchcraft is given the bark of the Inyi [saucewood, sasswood, Erythrophlœum guiniense] pounded up together with water. If the accused vomits he is considered innocent; if he does not the poison generally kills him, and his guilt is thus proved."[2] This is a short and easy way with witches, reminiscent in its principle of the European water ordeal for the same sort of offenders, though effecting its results by a directly opposite mode of decision. The connection between the magical and wholesome power of eggs and the magical and baleful power of the poison is recorded by another observer. The bark, we are told, is pounded and mixed with water into a paste, from which eggshaped balls are formed to be swallowed by the accused. The latter provide themselves with fowls' eggs, which are "repeatedly passed up the stomach to the throat"—exteriorly, we may suppose—after the poison is swallowed. "It was supposed to exercise an influence on the poison and bring it out."[3] A curious medley of white and black magic combined in the at once beneficent and harmful functioning of a state institution, and counteracted by a beneficent agent in the hands of a possibly guilty practitioner of the black art. The situation is still further complicated by the suggestion of a sympathetic connection between the shape of the poisonous pellets and that of the counteragent.

The egg was also apparently magically potent in promoting the increase of crops, and so connected here as in other parts of the world with fertility or regeneration. At the feast of new yams in November, among the offerings placed on the fetish altars along the road between Benin and Gwato were "above all eggshaped objects made of white substance, probably kaolin or pipeclay."[4]

The connection of eggs with growth or with the promotion of something desirable of which new growths are auspicious

[1] N. W. Thomas, Edo Burial Customs, Journal of the Royal Anthropological Institute, Vol. L (1920), p. 383.

[2] R. E. Dennett, At the Back of the Black Man's Mind, p. 191.

[3] Ling Roth, Great Benin, quoting C. Punch. P. 88.

[4] Op. cit. (C. Punch), p. 57.

is seen in two other modern Bini customs recorded by N. W. Thomas.[1]

At Yaju in the Edo country, "anyone who sees the first tooth [of an infant] gets an egg from the mother, fries it, touches the child's mouth and then eats it." A footnote adds the information that eggs are not, to the author's knowledge, eaten at any other time. At Ama, "as soon as the child gets teeth it eats an egg of which the mother also takes a part."

It is possible that the distinctly egglike shape of the vessel, Fig. 1, may be connected with the obviously important rôle played by eggs in Bini magico-religious procedure. This receptacle is not the only one of its kind, so far as shape is concerned, in existence. In Webster's Catalogue No. 29, Fig. 83, there is figured a bronze vessel similarly eggshaped with identically similar supports in the form of human legs. The forward surface is not modified in the same manner to assume the form of a human face, but presents a small full length human figure in high relief. This would seem to be sufficient to show that the form of the goblet pictured here was not determined by the necessity of representing a human head; it may therefore have been one of a class of objects representing another natural form. The conclusion is strengthened by the fact that the constriction of the upper part is not at all typical of Bini bronze heads, so that it is not straining probability unduly to compare this part to the small end of an egg.

The provision of legs to keep the vessels in a nearly upright position instead of the foot or base which is a structural part of the ordinary goblet seems to indicate a desire to preserve unimpaired the ovoid outline of both vessels. A similar arrangement in the case of another bronze vessel published by Webster[2] is no doubt due to the same cause. The last named receptacle may well be a derivative of the more distinctly ovoid examples. It has the head of an ox in relief.

The domestic fowl, source of the magically potent egg, shared in the magico-religious potency of the latter. In the Edo villages, we are told, on the occasion of a funeral "a small chicken is brought by the children [of the deceased] and carried round the grave; they say . . . 'Ban, come out of the body; the trouble that you had in this world you shall not suffer it again when you come again.' The

[1] Birth Customs, Journal of the Royal Anthropological Institute, Vol. LII, pp. 257, 258.

[2] Loc. cit., fig. 86.

chicken is thrown in the bush."[1] The ban, taboo, or curse inhabiting the corpse is here apparently exorcised into the body of the fowl, which, like the egg used on a similar occasion to remove a ban from the mourners, seems to have an attraction for the malign influences connected with death. The chicken apparently takes the ban into itself and is cast into the outer harmlessness of the bush. It is difficult, without further data, to reconcile the functions of the egg or fowl in the matter of death with those it performs in connection with the beginning of life or growth. Perhaps the purification of the body of the deceased may have been a kind of preparation for a new birth, since belief in reincarnation was an article of Bini faith: what was conducive to fertility and regeneration might include in its functions the removal of anything possibly obstructive to the latter. At any rate, the useful fowl served physical as well as spiritual needs at funerals. Chickens were killed at the grave and eaten by the youths.[2] "Before burial chickens are brought for purifying the body."[3]

The cock was a favorite object for representation in the bronzes. There are two especially fine large examples exhibited in the University Museum.[4] These, like other representations of birds, were probably a part of the altar furniture of a great chief or of the king. Sir Richard Burton,[5] on his visit to Benin in 1862, saw in what he calls the atrium of the chief's house where he was lodged certain "household gods, three wooden images of turkeys with drooping wings . . . supported by two short truncheons, and placed in a black and white striped niche in the northern wall, with a raised step below it."

This was evidently the alcove with an altar which formed part of the arrangements of every important house in Benin town. The objects placed upon the altars, were, according to the importance of the householder, of a similar character to those placed upon the great juju altars of the king's compound. Pots, or other receptacles, now usually of earthenware, formed an important part of these fetish objects; and no doubt our ovoid bronze head once stood in the varied array of such articles that adorned a royal altar or that of a chief. The supporting legs, it will be noticed, are provided with anklets of beadwork, a sign of nobility; and it could thus have

[1] N. W. Thomas, Edo Burial Customs, p. 383.
[2] Loc. cit.
[3] P. 382.
[4] Museum Journal, Vol. III, p. 80.
[5] Quoted by H. L. Roth, Great Benin, pp. 168–169.

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Two Wooden Cups from the Kasia District of the Belgian Congo. The Lower was used in the Poison Ordeal.

stood in no commoner's shrine. Ordinarily earthenware pots were used, as has been said; but an example is known of a metal pot of precisely the same pattern as the earthen ones in common use for this purpose in recent times. A drawing of it has been published by H. Ling Roth,[1] who describes it as a "metal pot, similar to earthenware pots such as were in domestic use, and as were put full of food on the juju altar at a festival."

As to the uses of these altar vessels and their significance little is known and that little can be gathered only from scattered references to their presence on juju altars in this particular region and in neighbouring states where religious usages were similar.

Burton[2] saw at Gwato, near Benin town, on certain "domestic altars" "waterpots, pipkins of spirits, cowries, chalk-sticks, ivories . . . men's heads coarsely imitated in wood and metal." The last named were probably representations like those on the model juju altar in the African room of the University Museum.

On the altar of what was known as the Malaku House at Gwato —Malaku being the spirit of the big water, the sea—there were, according to Burton,[3] a variety of offerings among which were "wooden pots like old leather jacks, but adorned with metal."

What did the vessels on the Benin altars contain? In view of what we know about Bini customs, we may suspect that, sometimes at least, they held the blood of victims. When a great man died he was buried in an alcove in his favourite room. The tomb was a clay altar enclosing his bones. A similar altar, though larger and with more elaborate furniture, was the final resting place of the king. During several days after the king's death "the capital is in mourning. Men masked and disguised in a fantastic way armed with [swords] throng the streets and steal the heads of those whom they meet, collecting the blood in copper dishes to pour on to the tomb of the king."[4] The French original of this quotation is not available, but presumably "dishes" is a general term equivalent to vessels; a shallow, open receptacle would not be particularly suitable for carrying a liquid any considerable distance. The fact that the vessels were of metal—copper probably means bronze—indicates that they were not for ordinary use; very likely taken from a king's altar tomb, to be replaced there or put upon the new one.

[1] Great Benin, p. 77. Cf. p. 75.
[2] Op. cit., p. 59.
[3] Loc. cit.
[4] Op. cit. Landolphe (18th century). Pp. 42, 43.

In the ritual connected with the worship of the river god Ake a goat is sacrificed to the high god Osa. Some of its blood is poured into a bowl in front of the shrine and afterwards from this bowl on to the shrine itself.[1]

As to pots seen in position on altars in recent times, where we have record of their contents these seem always to be of a more innocent nature—water, usually, though, as we have seen, Burton found at Gwato "pipkins of spirits." A reason for this use of water may be inferred from R. E. Dennett's notes on the sacred rivers of Benin.[2] The representatives of certain of these rivers are pots of water. "The sign of [the] river [Awreomo] is an earthenware pot of water." Near its source "this river is called Ake, the axe. As a 'juju' this power Ake is represented" by various things which, we learn from the legend below the sketch of an Ake shrine on p. 221, include a pot of water, bananas, and yams. The pot of water, then, is apparently not merely a "sign" or representative of the sacred river, but, with other comestibles, an offering to the water divinity or spirit.

According to N. W. Thomas,[3] the emblem of Osa is frequently a pot. Osa is the name which this author assigns to the Bini supreme deity.

Dennett's account of sacred rivers continues: "Olukun is the Great Benin River, forming the southern boundary of the Kingdom. . . . Its sign is a pot of water. Every great house has an altar to Olukun in or near to which will be found a pot of water" and several other things including stones in an earthen pot.

The last item indicates that these altar utensils were sometimes of the nature of caskets and contained other things besides liquids. The pot or vase form for a casket has parallels in Dahomey. It is there the custom to place beside certain fetishes vases having lids of clay and in them offerings intended for the fetishes.[4] There also, we learn, makers of receptacles from gourds or calabashes grow their own cucurbits and by binding the growing fruit with compressors obtain varied shapes. The finished article may be ornamented with incised designs; those which are so decorated are "objets de luxe," in which jewels, etc., are kept.[5]

[1] N. W. Thomas, The Edo-Speaking Peoples, I, p. 31.
[2] At the Back of the Black Man's Mind, pp. 219–223.
[3] Op. cit., pp. 24, 26.
[4] P. Bouche, La Côte des Esclaves et le Dahomey, p. 396.
[5] E. Foa, Le Dahomey, p. 131.

Ordinary Bini vessels also were formerly of calabash or wood. D. R. writes: "They bring also [to the great and little markets] much firewood, and also calabashes to eat and drink from, together with other kinds of wooden dishes and bowls which serve the same purpose."[1]

The calabash is, in fact, a common West African utensil. A graceful bronze jar, thirty-six inches in height, which is said to have been a king of Benin's wine jar appears in Webster's Catalogue No. 19 (1899) as Fig. 62. It clearly suggests a slightly modified gourd form. His Catalogue No. 21 shows as Fig. 131 a bronze vase similar in shape which stands on a triple support representing human legs. The two other vessels figured by Webster which were referred to as possible derivatives of an egg form may in fact themselves be calabash derivatives; and consequently the same thing might be said to apply to Fig. 1 here.

On the other hand no ritual or ceremonial value is attributed to calabashes as such, and there would therefore, if these vessels represented calabash forms, be no point in attaching legs to them in such a manner that when the vessel is looked at from the front the supports are concealed and the characteristic outline of the whole is not interfered with—so that it might appear as calabash cum man or ox rather than as egg plus one of these.

There are precedents, of course, in Bini sacred art for the combination of what we should consider natural incompatibilities—for example in the well known catfish legs of the representations of the king. Bini categories in this realm are based on other conceptions than ours. The king was a juju or fetish, certain chiefs or nobles shared this quality in some degree, so did the catfish, and so did the egg. The probability of what might be called a Humpty Dumpty explanation for Fig. 1 appears in fact not extremely remote when viewed in this light—if one may be forgiven for associating Alice's brittle and harmless monster with this brazen image and its implications of gory ritual practice.

Perhaps this vessel, then, stood on an altar of importance representing in bronze what on less important altars earthen pots stood for—one of the fetish rivers of the kingdom; or it contained there an offering of water, wine, food or cola nuts brought to the ancestor's shrine. The latter is extremely probable, since we know that the large bronze heads which supported the carved tusks on

[1] Marquart, op. cit., p. xvi.

the altars were portraits or representatives of ancestors. So standing habitually, it may have been fitly taken from time to time to convey a king's offering such as those which we have seen were carried in procession through the town. That it was frequently handled and moved about is shown by bright patches of the metal which correspond naturally to the position of thumbs or fingers when it is held in the hands, and by the wear of the under surface of the supports. Elsewhere the metal is rather darkly patinated. Or the same vessel may have served, as also we have seen, to convey an offering of blood to the shrine where it habitually stood or to a new one erected to a king who had himself just become an ancestor. In any such case its utility and prestige would have been enhanced if it stood for two fetishes instead of one—for an ancestral spirit and for the spirit or force of fertility or regeneration represented by the egg.

Among the not very numerous old bronze or brass vessels from Benin which are known two besides those already mentioned present features of some interest in relation to the example we have been considering. These two vessels resemble each other closely, differing only in small details.[1] They are bronze jugs with spouts, one in the British Museum and the other in the collection of the late General Pitt-Rivers. Both are bottle shaped, or "somewhat in the form of a coffee-pot," to quote General Pitt-Rivers's description. They have circular lids with hinges. Each has a handle in the form of a snake; in the case of the Pitt-Rivers example the snake holds a human figure in its jaws. In both cases the short spout issues from the distended mouth of what is apparently an ape seated on the bulge of the lower portion of the jug, the disproportionately long body reaching, with the head, almost to the top of the bottle neck. The figure of the Pitt-Rivers jug has two tails. Both vessels stand on five legs, four of which imitate human legs with the feet all pointed forward, that is in the direction in which the ape-like figure of the spout is looking. Each vessel has a human figure, seen by its costume to be that of a chief or king, seated on the lid and looking forward in the sense just indicated. The description of the Pitt-Rivers jug mentions four masks, presumably human, surrounding this figure on the surface of the lid, but masks in this position cannot be distinguished from the photographs of either example. On the Pitt-Rivers jug, "round the swell of the vessel are four figures resembling

[1] Antiquities from Benin, Plate X, Fig. 1; Antique Works of Art from Benin, Plate VIII, Figs. 45 and 46; Great Benin, pp. 219 and 220.

frogs, the bodies ornamented as human heads." The British Museum vessel, as shown in the photograph, has one human mask and indications of two more in a corresponding position. There are probably four, corresponding to the composite figures on the other jug. Another jug of this character, but without legs, is figured by Pitt-Rivers in Plate XXIV, Figs. 151 and 152.

The lid of the UNIVERSITY MUSEUM'S vessel has a hinge of the same kind as these two. In the centre of the lid is a mask which reproduces in miniature the essential features of the larger face below. The vessel is supported by only two legs, with the feet turned backward. Like the legs of the two jugs in England, they are provided with bead anklets, marks of rank. These latter vessels stand on the legs vertically, do not lean obliquely against them as in the example here.

A third object of unknown use and furnished with legs of the same character is in the Bankfield Museum in Halifax (England).[1] It is a bronze head, which like Fig. 1 has legs but no body. Like the two vessels just described it stands vertically on the legs, which are four in number but are not provided with anklets, while the feet are turned in four directions at right angles to one another. Though the legs have not the marks of rank, the head surmounts a beadwork collar and there is a band of beadwork about the forehead. These both serve as indications of nobility. They are both lacking in the case of the vessel pictured here; but in this case rank is sufficiently indicated by the presence of the beadwork anklets and, probably, by the mask in the centre of the lid, since such masks appear among the adornments of the figures on the plaques which bear the usual signs of rank. The Bankfield Museum head is evidently a miniature copy of the bronze heads which served as supports for the carved tusks on the king's altars. Since its size—it is 5½ inches in height—is too small to allow of its being used for any such purpose, the crown of the head has not the hole which characterizes the latter.

The bronze head before us, in the colour of the metal and the treatment of the features of the face, resembles closely the heads of the good post-Portuguese period of which a fine example, a large head with winged headdress, stands third from the left on the Benin altar in this MUSEUM.[2] The head of Fig. 1 lacks the elaborate

[1] Great Benin, fig. 97.

[2] MUSEUM JOURNAL, Vol. XIII, Figs. 37 and 38.

beadwork accessories. The hairdressing of the latter is of the same type as that of the smaller and older heads, though the tiers of small plaits or tresses are here more numerous and more schematically rendered and much smaller, not merely in proportion to the reduced size of this example but when regarded as details of a study from life. Possibly in this case it is simply a device to represent the crinkled felted appearance of negro hair. That the intention is not to represent a woven cap is shown by the presence of five plaited tresses at each side of the head which overlie a part of this corrugated area. These are most satisfactorily accounted for by reference to a passage from a letter by the Dutch factor Nyendael written in 1702. He says:[1] "The Men don't Curl or Adorn their Hair, but content themselves with letting it grow in its natural Posture, except buckling it in two or three Places in order to hang a great Coral [bead] to it"—as the beads may be seen to hang in Fig. 2. Two plaited tresses or cords surround the crown of the head above the "buckles." One of these belongs to the lid of the vessel. Above it is a plain cord, to which are fastened cowrie shells, and which forms the upper rim of the lid.

The employment of cowries, besides or perhaps in connection with their use as currency, had probably some magico-religious implication. At the time of Burton's visit domestic altars were inlaid with these foreign shells.[2]

The space between the cowries and the mask in the centre is occupied by an open ring of guilloche in relief, the interstices of the design being filled with small flat topped bosses of the metals. Nyendael's account of the men's coiffure, as he no doubt observed it, does not do justice by any means to the variety of modes recorded by D. R. in an illustration accompanying his account of Benin in De Bry's compendium of travels of a century earlier; and Dapper[3] (1668) says that the women "make up their hair in an elegant fashion and plait it in the shape of a wreath on the top of their heads." This might be a cursory description of the decoration of the top—including the lid—of the vessel before us. The presence of beads in the headdress is no indication of the sex of the wearer; the wives of nobles also wore the precious corals.

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[1] Letter published in William Bosman's Description of the Coast of Guinea, English translation, London, 1705, p. 440.

[2] Ling Roth, p. 170; cf. p. 168.

[3] Quoted by Ling Roth, p. 19. For D. R.'s sketches. see p. 18.

In some of the masks[1] the well known bead "choker" which was a mark, or penalty, of nobility, has degenerated into a horse-shoe shaped frame for the lower part of the face, and it is often decorated with a band of guilloche or other ornament probably representing the base of the "choker." This frame commonly stands out from the side of the face in the plane of the four rings at the sides, Fig. 1. Here the band of guilloche ornament which passes round the face from ear to ear may represent a final phase in the degeneration of the "choker." Or, it may be a chin strap like those worn by some of the plaque figures. But where the strap occurs in the latter case, these figures are usually wearing hats or helmets. On the whole, the former conjecture seems more likely.

The complete chinlessness of the face may be partly due to copying from the altar heads with high collars concealing the lower part of the face. But the cleft retreating chin, markedly cleft and markedly retreating, is a feature of the older bronze heads, before the choker had grown to such formidable proportions. It is, perhaps, an additional argument for the egg basis of this head, that the chin has completely retreated, while tradition was sufficiently strong to assert itself in the retention of the cleft, which, besides, does less to mar the broad rounded outline of the lower part of the ovoid than would a chin of however slight downward rather than forward prominence. The chin, such as it was, has vanished into the cleft, if one may say so, and the latter alone remains to proclaim, somewhat paradoxically, the existence of the former.

Whether the short rectangular support below the place where a chin would normally be is intended to represent a beard and so enable us to determine the sex of the personage is uncertain. Beards of a rectangular cut appear in the representations of Europeans on tusks and other ivory and woodcarvings as well as in the case of some highly conventionalized heads of Europeans on the metal work. I have not been able to find a clear case where the head of a negro is represented with a beard of this form. This fact and the additional one that the appendage seems to be attached to the ornamental frame which encloses the face and not to the face itself make it seem unlikely that it is anything more than what its obvious function indicates—a third prop intended to give the face a decided upward tilt.

[1] Cf. Museum Journal, Vol. III (1912), Fig. 41.

Four rings, two on each side, apparently not cast as a part of the vessel but soldered on, project just behind the band of guilloche ornament on the cheeks. Crotals or hawk's bells were formerly attached to all of these, but now remain suspended by metal links from the lower two only. This emphasizes the resemblance of the head to the small bronze masks, which were worn as personal ornaments and often had a fringe of crotals suspended from the horseshoe frame or collar. The outer rim of the rings is decorated with a plaited design identical with that which forms a border to the band of guilloche surrounding the face; it is evidently suggested by the plaits of hair depending from each side of the head. It is repeated on the rings which go to form the hinge and the clasp of the lid.

The guilloche, a basketry form, which occurs again on the upper surface of the lid, is there not continuous. It is broken opposite the hinge and the gap filled by a loop and double coil ornament. The position of this ornament close to the back or top of the head both of the small mask on the lid and of the larger object of which the mask is a miniature replica is, curiously enough, paralleled by the occurence of the same ornament at the back of the head of the Bankfield Museum object previously referred to. Its isolation in the latter case, where it fills an apparently otherwise purposeless break in the beadwork fillet, and its complete difference in character from the remainder of the decorative accessories of the head make it peculiarly conspicuous there and suggest, when these considerations are related to its similar position as shown in Fig. 2 here, that it may have some symbolic implication. It would not be easy to establish this definitely. There is nevertheless some reason for regarding this ornament, or this symbol, if it is such, as a degenerated or purposely simplified representation of the head of a European. The importance of the head as a feature in the fetish or religious observances of the Bini is well known. At Gwatun or Gwato on the outskirts of the kingdom a tradition connected the white man with a mythical race of apelike sorcerers.[1] Has this tradition, perhaps, some relation to the apelike figures on the bronze jugs? If so, there would be precedent for putting a symbol of the white man, regarded as a potent fetish or juju, on other vessels or altar furniture, especially since the more realistic depiction of him on the altar tusks undoubtedly had some such significance.

[1] C. Punch, quoted by Ling Roth, p. 12.

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Two Kasai Cups.

Barbot, writing of the period near the end of the seventeenth century, says: "Europeans are so much honoured and respected at Benin, that the natives give them the emphatick name of Owiorisa . . . children of God; and in discoursing with us in person, they often tell us in broken Portuguese, *Vos sa Dios*, or, you are Gods."[1] This is evidently based, like the greater part of Barbot's account of Benin, on the earlier account by Dapper, which in turn is based on that of D. R. In a translation from the Dutch of Dapper prepared for Ling Roth, the chronicler is made to say: "They call God *Orisa*, and the white one (*den witte Owiorisa*), i. e. God's child."[2] There is some confusion here; what Dapper meant was, clearly, "and the white man (den witte) they call Owiorisa." Owi in N. W. Thomas's Edo vocabulary is the word for child.[3] There is no evidence that Barbot was ever himself in Benin, but he was agent general for the Royal Company of Africa and knew the Guinea Coast, and there is no reason to doubt the authenticity of his confirmatory gloss on Dapper.

To return to the vessel itself. The two projecting lozenges near the rim in front may be the heads of hairpins. These projections are hollow and probably originally contained coral or other inlay. The raised vertical marks above the eyes are in imitation of those produced on the forehead of the living by scarification. Although such marks seem to have been intended as a tribal distinction they varied in number and disposition with the individual.

The length of the head exclusive of the prop in front is 5½ inches. It is thus of about the same size as the Bankfield Museum's head.

II

The wooden vessels (Figs. 3–20) are all from a region dominated now or formerly by a powerful group of Bantus known among themselves as Bushongo and to their neighbours as Bakuba. The tribes concerned are located on or near the lower reaches of the Kasai and Sankuru rivers, which together with their tributaries form the great southwestern affluent of the Congo. The UNIVERSITY MUSEUM has a number of objects from this region, several of which have been published in previous issues of the JOURNAL.[4]

[1] J. Barbot, A Description of the Coasts of South Guinea, in Churchill's Voyages and Travels, V, p. 361. London, 1732.

[2] Ling Roth, p. 49.

[3] Edo-Speaking Peoples, I, p. 114.

[4] Vol. IV, pp. 13ff.; Vol. X, pp. 87–99; Vol. XI, No. 1; Vol. XIV, p. 48, pp. 103ff.

Figs. 5 and 6 are two views of a Bushongo cup or goblet. It is said to have been used in the poison ordeal which is practised by these people in common with many other African tribes, both those called Bantus of the peninsular portion of Africa and the purer negroes to the north and northwest. It was, and no doubt still is when the attention of European officials can be evaded, practised, as we have seen, by the Bini. It has been reported from many other negro groups of the Guinea coast and the country inland, its use is general throughout the Congo region, and common in the lands to the north, east, and south of the latter. It is most commonly employed in the process of witch finding, though its application to the conviction of other criminals, especially thieves and murderers, is not unusual. Wherever this kind of ordeal is employed the belief obtains that there is no such form of death as we call natural but that all persons who die otherwise than through some such special act of supernatural power as a stroke of lightning, or in battle, have been done to death by witchcraft. The sorcerer is thus guilty of at least two crimes—the practice of illicit as distinct from official magic, and murder; in cases where he is believed to have stolen the soul of the deceased, he may be convicted by the poison ordeal of three crimes at once.

This ordeal as practised by the Bushongo is described by Torday[1] as follows: "When a person dies a natural death or without evident cause, his death is attributed to an evil spirit acting through the intermediary of another person who is possessed, sometimes without knowing it, by the evil spirit. These demoniacs must submit to the ordeal by poison, which is prepared and administered by a special personage called Nyimi Shake among the Bambala and Miseke among the Bangongo." The Bambala and the Bangongo are subtribes of the Bushongo, the Bambala being the ruling group. "In the west, if the individual succumbs to the poison, or if it is eliminated in the course of nature, he is declared guilty, and in the latter case is lynched by the mob. . . . On the other hand, if the accused vomits the poison he is declared innocent and the accuser pays him an indemnity of three or four thousand cowries. . . . In the east [i. e. among the Bangongo], if someone dies a natural death and the causes of his decease are not too apparent, his brother often accuses someone in the village, most often an old man or woman, of being Boloki, possessed by a demon, and of having

[1] E. Torday and T. A. Joyce, Les Bushongo, pp. 78–79.

by this fact caused the death of his relative. In this case, the official called Miseke is required to subject the accused to the ordeal by poison. This poison . . . is extracted by the Miseke from the bark of a plant called Ephumi . . . A cup of poison being offered to the accused, he says: 'If I have killed So and So [repeated thrice], may you kill me (he claps his hands thrice), but if I am innocent, prove it.' Then he empties the cup and makes for the bush, followed by the whole village. The friends and relations of the deceased shout: 'You have killed So and So [repeated once], and you will die!' The friends of the accused shout to him: 'Show that you are innocent, show that you are innocent!' The Miseke runs beside the fugitive and, striking him on the head with a child's rattle, keeps repeating: 'Ephumi, Ephumi, kill the Boloki.' If the accused has an attack of vomiting, his innocence is considered proved, the accuser must pay him several thousand cowries in damages, and he is congratulated on having escaped the danger. On the other hand, if vomiting is not brought on, the accused dies and thus his guilt is proved."

The writer adds here that the Bakongo, a related tribe whose territory lies west of the Bushongo's and to whom we shall have occasion to refer again, also practised the ordeal by poison. In the MUSEUM JOURNAL, Vol. X, Fig. 33, the second object from the right is a Bakongo vessel in the form of a woman, which was employed in the ordeal, according to a note by Mr. Torday, who obtained this cup in the Bakongo country.

The Bakongo, says Torday, called the drug they used epomi, which is evidently another form of the name ephumi applied by the Bushongo to the plant from which they obtained their drug. This plant, so far as can be gathered from the account just quoted, has not been identified as belonging to any known species. The sasswood, Erythrophlœum guiniense, which was used in ordeals in Benin, was in general use also in the rest of Guinea, in the Zambezi region, in that of Lake Nyassa, and in southeastern Africa generally.[1] Sir Harry Johnston, on whose authority this statement is made, believes that the poison of the Congo "with the doubtful exception of the coast region," is obtained not from the sasswood but from several different species of Strychnos.[2] But there can be no doubt that sasswood, whether indigenous to any part of the region or not,

[1] Sir H. H. Johnston, George Grenfell and the Congo, II, p. 689, footnote.

[2] Loc. cit.

is used in the interior Congo, in the same general region with which we are here concerned. The poison used in the ordeal by the Bambala on the Kwilu river has been identified by competent authority as the bark of the sasswood, obtained in trade from the mouth of the Kwango, a stream of which the Kwilu is an affluent and which itself joins the Kasai a short distance above the confluence of the latter with the Congo. A poison with the same native name as that used by the Bambala is employed by the Bayaka further to the south. This also is stated to be sasswood.[1]

According to a writer in Annales du Musée du Congo,[2] there are various sources of the poison used in this ordeal in the Congo—the root of a Strychnos, the sap of certain euphorbias, and a decoction made from ants. The bark of an acacia, which he also brings into this list, is specified in another passage as being the source of a preparation used in an eye ordeal.

The cup or goblet, Figs. 5 and 6, shows by the wear and polish of its exterior that it has been long in use. The red tint which appears especially in the incisions of the carving and wherever else, especially the under surface of the base or foot, the polish acquired through much handling is less apparent, is due to rubbing with a pigment made from powdered wood. The wood used is that of the camwood (Baphia).

The wood itself, or its bark, according to Johnston, is reduced to powder by being moistened and rubbed against a stone. The powder is made into a paste through mixture with palm oil. The camwood does not grow in the Bushongo country, but is imported from the east. The Bushongo have a proverb which declares that "the day will never come when the Chale (Sankuru River) will refuse us tukula and the Luefo (Kasai) salt." The pigment is of a crimson colour and is chiefly used in the adornment of their bodies. Speaking of another group of Congo people Johnston says: "It is really a pleasure to one's colour-sense to see [them], nearly naked and painted a dull dry crimson (deep rose colour) from head to foot, emerging from the dark forest background on to a river shore of golden sand above a reflected sky of deep grey-blue." The Bushongo wear more clothes than these people, whose country is further north, but among the former the torso is commonly nude and smeared with

[1] Torday and Joyce, Journal of the Royal Anthropological Institute, XXXV (1905), p. 416, footnote; XXXVI (1906), p. 49.

[2] Series 3, Vol. I, Notes analytiques, pp. 189, 190.

tukula paste. The pigment, as we have seen, is also applied to some of their woodcarvings. The wooden portrait statue[1] of Shamba Bolongongo, ninety third in the list of Bushongo kings, who is believed to have flourished in the seventeenth century, which is now in the British Museum, was polished with tukula paste. It is used also for dyeing or staining cloth. Its use for painting the bodies of the dead in preparation for burial may perhaps have lent it a magical significance which would make it fitting for application to a goblet like this, the vehicle of death. The Bangendi, a subtribe of the Bushongo, abstain from the use of this favourite cosmetic during the period of mourning. The paste is kept in special boxes, several of which may be seen in the MUSEUM; the cakes into which it is formed for preservation are carved into small models of human heads and of implements such as axes or spears, and presented by the heir of a deceased person to the other relatives as mementoes of the departed. The carving of these tukula blocks is the work of women, curiously enough, since wood sculpture in general is in the hands of the men. The woodcarver's craft is so highly esteemed that at the court of the Nyimi or king of the Bushongo its representative takes precedence of the representatives of all other crafts.

For woodcarving a special knife is used having a handle long enough for its butt to rest in and be supported by the angle which the bent forearm makes with the upper. This would have the effect of making the blade practically unitary with the directing hand, giving greater firmness and decision to movements of the edge or point of the blade.[2]

The cup in question is said not only to have been used in the Bushongo ordeal by poison but to have been the property of a chief. The latter claim is strengthened by the fact that the principal band of decoration encircling the cup on each side of the human face which occupies, from ear to ear, more than one-third of the periphery is a modification of the pattern known to the Bushongo as Mikope Ngoma, or the drums of Mikope. A note by Mr. Torday on another cup in the UNIVERSITY MUSEUM which bears a variety of this design states: "Mikope was the name of several kings of Bushongo and the pattern represents the sign-manual of one of them. Each king is supposed to invent a new pattern and this holds lieu of his

[1] Les Bushongo, Plate I.

[2] H. H. Johnston, op. cit. II, pp. 560, 561; E. Torday and T. A. Joyce, Les Bushongo, pp. 92, 127, 129, 130, 175, 191, 192, 205, 206; T. A. Joyce in Man, 1910, p. 2.

signature." Mr. Torday says elsewhere that the design was invented by this Nyimi or king of the Bushongo to serve as the decoration of the royal drums; since several varieties of Mikope Ngoma are known and since the design was devised to be thenceforward the distinctive mark of royal property, the words "new pattern" in Mr. Torday's note must be taken to mean a new modification of the sign manual of the royal inventor. Also, since the functionary who administered the poison in a cup was a court official, as we are told and as in fact his title, Nyimi Shake, indicates, it is likely that this cup bearing the royal mark was indeed a royal cup used by a Nyimi Shake in the performance of his official duties.[1]

The carving of the vessel is rather carelessly executed. The Mikope pattern is carried up in an imperfect form behind, i. e. at a point opposite the middle of the forehead of the human face, where it appears in an irregular triangular space breaking into the band of ornament surrounding the goblet near the rim. This latter band is identical, or is intended to be so, with another encircling the foot of the goblet. Both are carelessly executed renderings of the design known to the Bambala as "the eye" and to the Bangongo as "wild pig's back."[2]

There is a resemblance in shape between the goblets of the Bushongo and their drums so close as to suggest the development of the latter from the former through enlargement and the attachment of a drumhead. But the resemblance is probably in fact due merely to the borrowing for one hollowed wooden object, the drum, of a form found pleasing in the case of another whose general type was not necessarily the earlier invention. Appropriately enough, considering the design which forms the principal feature of its conventional decoration, this cup is almost identical in shape with a Bushongo drum figured on page 91 of Torday and Joyce's book.

The simplification of the lines of the face represented in relief on this cup, together with the slipshod rendering of the designs which accompany it, seems to mark the cup as the production of an inferior workman. But it is more likely to have been a question of haste due to some urgent occasion. That the carving was hastily carried out is obvious; one has only to look at the few hurried strokes and incisions which outline the mere sketch of features in the triangular area of the face in order to be sure of that. But one

[1] Les Bushongo, pp. 54, 221, 222.

[2] Les Bushongo, p. 227.

11 12
13 14

Two Kasai Cups.

may question whether a man who had not the conventions of his craft in the very skin of his fingers could have dashed off the sketch with such certainty and have reached so characteristic an effect as we have here. Perhaps a Nyimi Shake found that he had mislaid or broken his cup on being suddenly required to conduct an ordeal at short notice, summoned a woodcarver, and issued pressing orders. Once used and the emergency thus successfully met, the cup would be employed again and again, as this one indeed evidently has been, if Departmental human nature is the same in the Kasai as it is in other parts of the world. Probably it is, only rather more so.

An especially remarkable feature of primitive art, and one which is peculiarly noticeable in the work of negro craftsmen, is the clinging to realism accompanied by a strong tendency to conventionalize natural forms. Perhaps in the case of the negro this apparently paradoxical alliance of tendencies may be due to a combination of an infinite incapacity for taking pains with excellent powers of observation. The difficulty of translating what is acutely observed into a fully illusory picture of reality—an aim which is always obviously before his mind—is not so much met as evaded by a process of simplification in which salient characters are retained stripped of confusing detail and relations. In such a process stylisation will necessarily go far and will even become an end in itself, giving rise to that peculiarly decorative appearance which is the especially attractive aspect of negro wood and ivory sculpture.

The observation of the close alliance of curves, ridges and hollows in which in the topography of the human face brows and nose and eyes are linked leads to a unitary treatment of these features with a ruthless shearing away of details which is just as remarkable in the crude sketch of Figs. 5 and 6 as in the finished work of Fig. 7. In either case the combination of triangle and double ellipse is quite as stylistic as any similar element in a geometrical pattern might be.

In the case of Fig. 11, a goblet with a Januslike combination of heads, the unitary conception of this group of features differs from that exemplified in Fig. 7 in the flattening of the ridge which marks the eyebrows, a similar flattening of the bridge and a marked prominence of the tip of the nose, together with a sinking of two small holes in the horizontal under surface of that feature to represent nostrils. These last two concessions to realism are matched in the case of Fig. 7 by a ridge left across the corresponding horizontal

surface to represent the edge of the septum. The contours in the case of Fig. 11 are more graceful and pleasing, though not executed with quite so much precision, as those of the other cup. The same thing is true, in fact, of the lines of the two cups in general.

The small cup, Figs. 9 and 10, which resembles Fig. 11 in the general lightness and grace of its outlines, while the general plan of grouping features is the same, offers a striking contrast to the other two just dealt with in the remarkable realism of the nose with its long spine slightly flattened below between the prominent flaring widely opened nostrils. Here is clearly a new appeal to nature. The realist has triumphed for a moment over the pattern maker. The eyes are conventional enough, in a slightly divergent convention. The curve of the eyebrow is an incised line, not a ridge, and this line is repeated below to define with greater emphasis the lower boundary of the hollow of the orbit.

While, in the case of the small cup, Figs. 18 and 19, the treatment of the eyebrows as a bifurcation of the ridge representing the nose is only slightly less conventional in showing a slight depression at the fork, the rendering of the eyes is much more realistic. These are as markedly almondshaped as those of Fig. 11, but while in the latter they appear only as a more elegant variety of the same design in Fig. 7, here the heavy drooping upper lids are strongly differentiated as in nature from the narrow ridges which mark the lower. The slight break in continuity of the line of nose and brows which this face shows is much more marked in the case of one of the three Janus like cups in this group, Figs. 15–17. Here there is a sharp break in continuity between the broad triangular recurved lump of the nose, with its not very well defined central ridge, and the strongly defined ridge of the brows.

The faces on this cup, which was collected by Mr. Torday in the Bashilele-Bakongo country, have a strong resemblance to a mask in the University Museum which was published in the Journal, Vol. X, Fig. 32, p. 92, and was further discussed in Vol. XIV, p. 78. The mask is from the Bapindi or Bapende and is one of the most remarkably realistic examples of authentically negro wood sculpture in existence. The resemblance is not confined to the features referred to in the last paragraph, but extends to the peculiarly bulbous forehead, and even to the shape of the neck not excluding the extension of the latter downwards into a wedge shaped base which forms the foot of the goblet in Figs. 15–17.

The Bapende are southwestern neighbours of the Bakongo, of whom the Bashilele, according to Torday,[1] now form a part, these two tribes having formed the vanguard of the migrations from the north which brought the Bushongo to rule the country they now occupy. The Bakongo-Bashilele are, however, independent of Bushongo rule. The Bapende, on the other hand, are migrants from the south, from the borders of the old Lunda empire, and the custom of artificial deformation of the head which obtains, or until lately obtained, among the Balunda, is, it would seem, embalmed in the peculiar form given to the forehead of this cup and this mask; unless, indeed, both cup and mask, as well as the southern custom which they recall are to be regarded as reminiscences of some actual hydrocephalous prototype among the rulers of the southern lands formerly included in the Lunda empire. We learn from Torday[2] that double-headed cups are especially characteristic of the Bakongo; but if the cup, Fig. 15, is the production of a Bashilele or Bakongo workman, and not an importation from the Bapende country, it is certainly the result of the copying of Bapende models. The same is true to a less marked degree of the small cup, Figs. 18 and 19, which is probably of Bakongo origin. The influence of the Bapende on Bakongo and Bushongo industry is clear both from tradition and from recent observation and information.[3]

A very curious cup, Fig. 20, collected by Torday from the Bapende, which represents a complete human figure standing on bent legs in an attitude which is typical of so many Congo figurines that it must correspond to a normal racial character of the negroes of that region, shows the same bulbous forehead, the same heavy eyebrows, and the same shape of the ears as Figs. 15–17. The nose is more realistic than in the case of any of the other cups, except Fig. 9, which closely resembles it in the rendering of this feature, save that in Fig. 20 it is flatter and broader in the bridge. Fig. 9 is said to be of Bashilele origin, though the mode of hairdressing represented is typically Bakongo. The relations between these two groups of people is so close that there is no reason to doubt that a

[1] Les Bushongo, pp. 46, 47, 11.

[2] P. 205.

[3] Museum Journal, Vol. XIV, p. 78; Torday and Joyce, Les Bushongo, passim, see index *s. v.* Bapende; T. A. Joyce, British Museum Handbook of the Ethnographical Collections, p. 216; Torday and Joyce, On the Ethnology of the Congo Free State, Journal of the Royal Anthropological Institute, XXXVII, 1907, pp. 141–143. See also the same authors' Notes ethnographiques sur des populations habitant les bassins du Kasai et du Kwango oriental, Annales du Musée du Congo, Brussels, 1922.

Bashilele woodcarver may have intended to portray in this graceful little vessel a Bakongo type, or that a cup of Bakongo workmanship may have been found among the Bashilele. Fig. 7, which was taken to exemplify the most typically conventionalized form of eyes and nose represented among these cups, shows like Fig. 10, as also do the jugated heads of Fig. 14, the shaven triangular area above the ear which is characteristic of the Bakongo. The cup of Figs. 9 and 10 is said to have been collected among the Bashilele and that of Figs. 13 and 14 among the Bakongo.

This Bakongo fashion of modifying the normal line of implantation of the hair is reported to have been influenced by the wish to imitate the scalloped line of the brim of the Bushongo cap, which itself was probably devised in imitation of the pattern formed by the line of implantation showing through the skin after the shaving of the head. Torday describes the custom of the Bambala, the head tribe of the Bushongo, as follows: "The men shave the whole head, keeping on the top of the skull only a small tuft of hair just large enough to be hidden by the headdress [i. e. cap]; the temples and forehead are carefully shaved, but the line of implantation of the hair can nevertheless be distinguished and this line is indicated on the [heads of the] dolls and on the carvings, as, for example, on the statues of the kings." The women also shave their heads.[1]

In most cases the closely matted, crinkled quality of negro hair is represented on the cups by a deeply incised crosshatching. The poison cup, Figs. 5 and 6, and the legged cup, Fig. 20, are exceptions. In the case of the former only the outline of the hair on the forehead is shown; the sharply retreating triangular areas at each side of the forehead are too far forward to be an indication of the Bakongo fashion. They simply represent a conventionalized rendering of the natural line of growth of the hair on the temples. In the case of Fig. 20 no attempt has been made to represent the hair.

The Bakongo and the Bashilele shave close the border of the hairy area, and just above this keep the hair short. The shaven border is probably represented in Figs. 7–19 by the single, double, or triple line which bounds the crosshatched area. The extra scallops seen in the side view, Fig. 12, are simply a decorative repetition of the first on each side.

In the case of the small cup, Fig. 18, it is possible that two influences may have combined to bring about the multiplication

[1] Les Bushongo, pp. 49, 168. See also p. 169, Bashilele and Bakongo.

15 17 16
18 19

Two Kasai Cups. The head in the middle is a front view of the Cup of which two side views are shown above.

of these bounding lines or ridges. It is easy to see how the desire for an increased decorative effect could have led in the other cases to a duplication of the single ridges which, as in Figs. 7 and 9, are all that is necessary for a mere indication of the shaven zone. If the desire for an enhancement of the decoration provided by the ridge led to its duplication it may of course just as easily have led to its triplication. But, on the other hand, the central part of the decoration, if it is purely such in intention, is repeated in three independent chevrons above the forehead, crowding out the crosshatching in that area, and leaving a small triangular undecorated space just below the rim of the cup. When this apparently purposeless additional repetition of the bounding ridges is considered in connection with the ridges representing cicatrization on the forehead, immediately above the brows, of Fig. 20, there is some reason for thinking that the multiplication of similarly shaped contours on an object which in its general style already suggests imitation of a Bapende model may also be due to copying, perhaps misunderstanding at the same time of the device copied, of another Bapende peculiarity.

There is much variety in the hairdressing fashions of this region, and apart from certain well-defined modes like the Bakongo shaven triangle above the ears, many of the variations seem to be due only to individual caprice. Among several tribes a favourite means of securing the decorative effect aimed at is shaving other portions of the scalp than those already mentioned, forming various combinations of strips of bare scalp and tufts of wool alternately. Perhaps the two crosshatched triangles at the back of the head of Fig. 19 separated by undecorated flat raised bands from each other and from the remainder of the crosshatched area are an imitation of some such fashion in hairdressing, though the evident predilection of the woodcarver in this instance for decorative effects as such makes it doubtful whether he was not simply concerned with the ornamentation of the spaces at his disposal without any reference to reality. The odds in favour of the probability of this view are increased by an examination of the wooden vase, Figs. 3 and 4, on which are to be seen crosshatched triangles alternating with others filled with the same bisected rhombs as occupy the outer surface of the flat vertical middle portion of the handle of Fig. 19. Probably the same aversion from empty spaces, or from spaces monotonously filled, led to the carving on the back of the head shown in Fig. 10 of a closed guilloche resembling a favourite design of the Bushongo,

known to them as namba, the knot. This design is not confined to woodcarving but is fairly common in the region in body cicatrization, or skincarving. The forming of cicatrized designs on the hairy scalp is not practised, so far as I know; but the use of this design in body cicatrizing might easily suggest its application to the representation of a human head. No facts of which I am aware suggest that it might have, in a position so nearly the same as the loop and coil ornament on the Benin heads, any symbolic or fetish significance. The bisected lozenge or rhomb of Figs. 19 and 3, which occurs again in a band encircling the common neck of the jugated heads of Fig. 12, is, according to Torday and Joyce, derived from an ornament based on the markings of the carapace of a tortoise.[1]

The raised (Figs. 11–18) or incised (Fig. 10) circular cicatrices on the temples of these heads may, like the Bini forehead scars, be regarded, as they are by at any rate some of the tribes which wear them, as tribal marks, though they are not always in fact distinctive, being worn by numerous groups of people in the Congo area. It is doubtful whether they appear as single marks among the Bushongo, though two of the subtribes are said to have groups of three circles on each temple. Torday's language[2] in describing these face cicatrizations is not quite clear, however, though it appears that the figure three given in his account denotes the number of concentric rings in one circle. In Fig. 18, for example, each temple shows, partly countersunk in a depression, three concentric rings about a small central boss. In view of the fact that the outline of the hair or coiffure in this example closely resembles the shape of the brim of the Bushongo cap, it is even possible that this is a Bushongo vessel, though it is, I think, more likely, having regard to its general style, and the treatment of the mouth with the teeth brought into prominence, to be a Bakongo product, like Fig. 13, which it resembles in this last particular.

The description given by Torday of the Bakongo type of face markings is not more clear than his notes on the Bushongo fashion: "Sometimes also two concentric circles are found on each temple, though a double row of from eight to ten lozenges running back from the corner of the eye is more usual."[3] While a Bushongo (Bambala) cup figured by Torday and Joyce shows a group of three

[1] Les Bushongo, Fig. 305 and p. 212.
[2] Op. cit., pp. 165, 166.
[3] Les Bushongo, pp. 166–167.

round buttons on the temple,[1] five Bakongo cups[2] have a single prominent round button marked with two or more concentric rings in the same position. This seems to indicate that Torday does not mean the same thing in the two passages. A photograph of a Bakongo woman published by him in the MUSEUM JOURNAL[3] shows a single large raised circular scar forward of the left ear, the figure being in profile. On the other hand, Fig. 200 in Les Bushongo, which is a sketch of the face markings of a Bangongo (Bushongo) woman, depicts a similar temple marking consisting of a single figure made up of three concentric circles. Probably the truth is that there are individual differences in the two groups of people with regard to the number of circular scars worn, but that the prevailing custom among the Bakongo is to wear a single circular raised scar made up of concentric rings on each temple.

Fig. 14, a side view of a Bakongo cup, shows temple markings which are a combination of the two devices mentioned for the Bakongo, a double row of scars in a straight line and a button marked with concentric rings. Only the former design appears on the temples in the case of the Bashilele vessel, Figs. 7 and 8, which is very nearly identical with another Bashilele cup figured by Torday and Joyce in Les Bushongo, Fig. 290. But neither can this device of a double line of cicatrices between eye and ear be definitely localized as a peculiarity of one group. The Bangendi, a subtribe of the Bushongo, also wear it.[4]

Until the time of Torday's visit twenty years ago the Bushongo were very unwilling to admit white men into their country; and he found it impossible to penetrate the interior of Bakongo territory. This hostility was largely due to the position of these tribes as middlemen, a profitable occupation which they were unwilling that strangers should usurp or share. This community of interests explains the ready transmission of fashions and material objects from one group to another. In many cases it would not be possible without some original data concerning the provenience of a particular object to assign it to any one of these groups as its originator. Even with such data it might happen that a cup, for example, found among the Bashilele had been made by a Bakongo or by a Bushongo workman, or that its decoration had been designed by a Bashilele

[1] Op. cit., fig. 289.
[2] Op. cit., fig. 290.
[3] Vol. IV, p. 20.
[4] Les Bushongo, p. 165.

workman in imitation of a Bushongo product. In the matter of wooden cups, however, this is less likely to be the case than in that of some other industrial products, since the Bashilele and Bakongo are almost as remarkable for the turning out of artistic examples of these vessels as are the Bushongo.

Bapende style, as we have seen, has earmarks all its own; and when a cup like Fig. 20 collected in the region by Torday himself is called by him Bapende and bears upon itself a peculiarity which, in addition to those adduced before, we know to be Bapende, the identification is practically as certain as if the explorer had seen the workman in the act of making the vessel. This peculiarity is also one which enables us to determine as female the sex of the figure represented. It is, in fact, the only one of the cups in the group which has any such undoubted distinguishing mark. The three parallel ridges bounding the lower edge of what might be called the barrel of the cup represent an important feature in the body markings of Bapende women, which, according to Torday, has been borrowed by the women of their Bakongo neighbours. This feature consists of a certain number of parallel horizontal incisions across the lower part of the abdomen.[1]

Torday gives some further slight description of Bapende fashions in cicatrization. He says that the tribal mark, worn, presumably, on the temples, consists of "a small circle in relief of about five to ten centimetres in diameter." "Centimetres" is perhaps a slip of the pen for "millimetres": a circle of from two to four inches in diameter in that position could hardly be called small; indeed there would not be room at all for one of the larger dimensions stated. Yet it seems fairly certain from Torday's manner of expressing himself elsewhere that when he refers to tribal marks without specifying their location he intends it to be understood that they are on the temples. Now Fig. 20 shows a row of serrations on each temple, consisting of five elements for the right temple and four for the left. The extreme forward element in each case is set off by a slight interval from the others and it is roughly circular. We have seen a similar combination of straight line and circle in the temple markings on the Bakongo cup, Fig. 14. Here again Bapende influence has apparently made itself felt among the Bakongo. The five double curves of the frontal cicatrization following the curves of the eyebrows

[1] Les Bushongo, pp. 166–167, Fig. 290f; Museum Journal, Vol. X, Fig. 33; Torday and Joyce, Notes ethnographiques, etc., p. 324.

and the single vertical mark down the middle of the forehead above are not mentioned by Torday, who, however, makes no claim to intimate or extended acquaintance with the Bapende. This form of forehead cicatrization recalls a design employed by the Bapoto in the northern Congo.[1]

The Bapende mask previously referred to has a rather formless knob at each outer edge on a level with the eyebrows. These knobs are evidently intended for ears. Below each in strong relief are two or three curved ridges. There was evidently great variety in the face markings of the Bapende.

Torday says[2] that the Bakongo women adorn their necks with cicatrices. The same remark would probably apply to the Bashilele, considering the close relations which obtain between these two groups. The Bashilele cup, Figs. 7 and 8, and the one figured by Torday on page 200 of Les Bushongo, Fig. 290d, as well as the Bakongo or Bashilele example with Bapende features which appears here as Figs. 15–17, all have the same type of cicatrices on the neck, namely squares or lozenges made up of a number of small scars. The same device appears among the Bushongo as a woman's mark, known as Ibushi,[3] though it is not confined to the neck. Two sketches of a Bushongo (Bangongo) woman, Figs. 200 and 201 in Les Bushongo, show Ibushi both on the neck and on the lower part of the abdomen. It is possible that among the Bashilele and Bakongo it may have been also a woman's mark, when applied to the neck. Not otherwise, for a Bakongo cup having the form of a man bears this ornament in a prominent position on the front of the body. On the other hand, a similar cup in the UNIVERSITY MUSEUM, the poison cup of the Bakongo which has been referred to more than once, and which represents a woman, has analogous markings on the back of the neck as well as on the body. There is thus a possibility that Figs. 7 and 15 here may represent women's heads.

The band imitating a woven design across the back of Fig. 20 probably is intended to imitate a palm cloth belt or loin cloth. It stops at the back of the arms because it would not be convenient—for the woodcarver—to carry it round in front.

The imitation of a basket weave on the base of the cup, Figs. 15–17, is probably simply decorative in intention and without relation to any design found in skin carving.

[1] H. H. Johnston, op. cit., Fig. 292.

[2] Les Bushongo, p. 167.

[3] Op. cit., fig. 207.

The rings carved about the neck in the case of Figs. 9–12, and 18 seem to be intended to represent necklaces. Torday figures several Bakongo women wearing one or two strands of fairly close fitting cord about the neck, though none of them has several rings as in the case of two of these cups. Other woodcarvings imitating the human form show the same repetition of these carved rings. On one such, a Bushongo (Bambala) ceremonial adze handle,[1] two of the spaces between the rings have punctuate markings which must be intended to represent beads. There is no record so far as I know of continuous circular ridges being cut in the skin of the neck. Torday in one passage speaks of scars on the necks of Bushongo women "simulating a necklace,"[2] but this presumably refers to various linear designs of a more complex nature. The band of what is said to be, in Bushongo ornamentation, a derivative of tortoise markings, which appears on the neck of the cup in Figs. 11 and 12 may be an example of such a scar necklace. This design appears also on the neck of a degenerated representation of a human figure into which a Bakongo ceremonial adze handle has been shaped.[3] The cup is a Bashilele or Bakongo production.

The countersunk button which shows on the throat in Figs. 9 and 10, also a Bashilele or Bakongo vessel, may, if the rings represent a real necklace, be an ornament forming a part of the latter. It is not likely that it represents a cicatrice, though analogy with the temple markings on the same cup certainly suggests this explanation. Two cups, in good Bushongo style, resembling the Bushongo cup which was published in Vol. XIV of the Museum Journal, Figs. 21 and 22, show similar protuberances on the throat. In one case there is a series of carved rings about the neck of the personage represented, from one of which directly, and not interrupting its continuity as does the button of Fig. 9, springs a digitlike protuberance. The neck of the other is surrounded by a single ring in high relief which obviously imitates a sharpridged metal neck ring opening in front and having the ends marked as two conical prominences. This seems to indicate clearly enough both the nature of the carved rings on all these cups as imitations of real necklaces or neckrings and of the button of Fig. 9 as intended to represent a part of such a neck ornament. The two cups referred to are in the Berlin Ethnological

[1] Les Bushongo, Fig. 292.
[2] P. 166.
[3] Fig. 291.

20
A Bapende Cup.

Museum. They are attributed to the Basongo Meno, north of the Bushongo on the other side of the Kasai-Sunkuru river, and were published by Frobenius ten years before his own visit to that region.[1]

The three human heads on the remaining goblet, Figs. 3 and 4, form no structural part of the vessel as do the human forms in the case of the other vessels pictured here. They are merely stuck on, so to speak, and are quite extraneous to the rest of the scheme of decoration. Possibly the four legs inserted between the base and the body of the goblet may be degenerated representations of human legs. They carry a certain suggestion of the convention according to which the leg is represented in some parts of the Congo. The cup, in its graceful outlines and in certain features of its decoration, closely resembles a cup published by Frobenius[2] together with those to which reference has just been made. The Berlin cup is said to come from the Baluba, a large and important group of people who are the southern neighbours of the tribes with which we have been principally concerned here. The completely different style of the heads on the cup in Figs. 3 and 4 from that of those we have been considering is favourable also to its attribution to the Baluba. The cup comes to us with no indication of its origin.

In one not unimportant particular, however, it resembles one of the best known and finest examples of Bushongo craftsmanship. This is a Bangongo wooden cup of considerable age, a drawing of which is published as Fig. 308 in Les Bushongo. The rim bears representations of an insect which is a common motif in Bushongo woodcarving. The representations of this Head of God, as it is called, are placed in two positions, inverted with regard to each other, so that when the cup is raised to the lips and inverted in the act of drinking, one of the heads appears to the eyes of the drinker in the same aspect as do the other heads when the cup is standing on its base. It will be seen that the same device has been used in the case of the small bearded heads of Figs. 3 and 4. The conventional decoration of this cup has already been referred to; it might have been executed by any of the northern tribes between the Kasai and the Loange of the Bakongo.

The simple application of a mask in high relief as in this case, or in relief so low that it scarcely affects the outlines of the cup on which it is carved as in Fig. 6, the poison cup which was the first

[1] L. Frobenius, Internationales Archiv für Ethnographie, VII (1894), Figs. 72 and 74.
[2] Fig. 70.

dealt with among these wooden vessels, can be traced in their structure as the origin of each of the examples figured here, with the possible exception of Fig. 9.

The illusion, which is undoubtedly striven for, of a head as a plastically complete whole is certainly not achieved in the case of Fig. 18, which is simply a mask to which a rounded back has been added. The same is true of Fig. 7, though the bounding lines of the mask have been to some extent obliterated by a rounding of them off into the under surfaces of the lower jaw. But this is a makeshift procedure, the mask is distinctly felt as plastered on, so to speak, to a rounded form predetermined by the nature of the vessel and the form of the cylinder of wood from which the vessel is carved. If this is so in the case of the single heads, the conditions imposed by the combining of two heads into a Januslike form necessarily make this state of things only more conspicuously evident. The faces in Figs. 11 and 12 are so little unitary with the whole quite graceful and well proportioned form turned out by the woodcarver that, taking even a front view of either of them, one has the impression that the face could be lifted up and off. This is only slightly less the case with the cup, Figs. 15–17. And this illusion directly contradictory to the realism which is apparently aimed at is, it would seem deliberately and paradoxically, enhanced by the formal treatment of the ears, which is most marked in Fig. 11, but which in Figs. 7, 17, and 14 also is calculated to define and accentuate by emphasizing the rearward delimitation of the masklike surface. Even in the case of Fig. 14, the least authentically traditional in manner of these carvings, the ears give the final touch to the impression of a pair of masks moulded on a neutral backing which is without realistic significance. It is, of course, in the only full length figure, Fig. 20, that the play of the fantasy in plastering human attributes on to, in this case, a barrel rather than a vase shaped object, is most plainly seen. But even in the most realistically treated example, Fig. 9, we have what is still essentially a vase decorated with a conventionalized human face rather than one effectively disguised as a human head.

In an essay on the plastic art of the negro the German critic Carl Einstein[1] defines "frontality" as a painter's conception of the stereoscopic, in which the three dimensional is summarized in one plane, the parts of objects nearer to the observer being emphasized

[1] Negerplastik, Munich, 1920.

and the rest treated as accompanying modifications of these prominent surfaces. In the successive preoccupation of artists, including sculptors, with this method of presenting reality and with another involving the conception of "plasticity," in the practice of which sculpture was to be regarded as the transcription of a psychic effect on the spectator, the presupposition of plastic art, truly so called, namely the cubism of space, was forgotten. Then, we are further told, the plastic art of the negro was discovered and it came to be recognized that it alone has produced sheer plastic form. The negro artist, it is said, expresses as form not simply the spatial but the three-dimensional, in which depth is not merely suggested, as in the painter's method which is based on a conception of frontality, but presented directly as form, i. e. the complete identity between appearance and individual realization.

It is rather doubtful perhaps whether the critics of this school do not attribute to the negro craftsman an acquaintance, instinctive and inarticulate, it is to be supposed, with a mysterious principle in art which has in fact remained mysterious to the critics themselves. At least this much is clear from the summary just given, that from the heresy involved in a "frontal" conception of reality the negro artist is to be absolved. Yet, to judge from these cups, all brought from a region where at the time of their manufacture any European contamination was out of the question, their makers must have invented this conception in the very heart of Africa, and pushed the practices involved to lengths which would put the most heretical of western sculptors to the blush.

MUSEUM NOTES

PURCHASES.

A Chinese painting, Sung Dynasty.
A bronze Chinese inkstand, Ming Dynasty.
Eight Chinese terracotta tomb figures, T'ang Dynasty.
A Chinese inscribed stela, T'ang Dynasty.
Five pieces of a Chinese stone frieze with figures in relief.
A Graeco Buddhist head.
A fragment of a Graeco Buddhist frieze.
An Egyptian memorial tablet of granite, Early Arabic.
A large Persian plate of lustre ware.
A glazed pottery jar from Palestine, Roman Period.
An Egyptian head of a royal statue, Ptolemaic Period.
A group of eleven bronze statuettes of Egyptian divinities, Ptolemaic Period.
A bronze statuette of Akh en Aten.
An Egyptian bronze hawk.
An Egyptian mummy case.
Eight specimens of American Indian handiwork.

GIFTS.

From Mrs. T. de Witt Cuyler, a Chinese pottery horse, T'ang Dynasty.
From Mrs. Edward Bok, twenty six American Indian baskets and two Southwestern Indian pottery vessels.
From Mr. Arthur L. Church, a group of Peruvian ethnological specimens collected on the Madeira River.
From Miss Elizabeth Dunbar, a votive offering of baked clay from Cashmere.
From Mr. Walter C. Wyman, fifteen South American gold ornaments from Colombia.

THE JOINT EXPEDITION TO MESOPOTAMIA.

The Joint Expedition of the British Museum and the University Museum to Mesopotamia concluded its last season's

work at the end of February when the members of the Expedition returned to their homes for the summer. Arrangements have been made to resume work at Ur of the Chaldees on the 1st of November. The personnel of the Expedition during the coming year will consist of Mr. C. Leonard Woolley, Director; Dr. Leon Legrain, Curator of the Babylonian Section of the University Museum, cuneiformist, and Mr. J. Linnell. Dr. Legrain left Philadelphia on September 17th to proceed to Mesopotamia. He will join Mr. Woolley and the other members of the party at Baghdad towards the end of October. Actual work at Ur will begin on November 1st.

BUILDING.

The new wing of the building which was begun in January, 1923, was completed during the summer. The collections acquired by the excavations in Egypt, Palestine and Mesopotamia are undergoing preparation for their installation in the new exhibition room.

AUTUMN COURSES OF LECTURES

Member's Course

November 1. Mexico; the Land of Buried Civilizations. Dr. James M. Taylor.
November 8. The Man Eaters of Tsavo. Lt. Col. J. H. Patterson, D.S.O.
November 15. Old New York, Yesterday and Today. Mr. Henry Collins Brown.
November 22. A Journey in West Africa. Prof. Amandus Johnson.
November 29. Personal Recollections in the Land of the Arabian Nights. Mme. Pierre Ponafidine.
December 6. Mysterious Nomads of the North. Mr. G. Clyde Fisher.
December 13. Byron in Venice. Mr. Cecil Roberts.
December 20. My Winter in North Greenland. Mr. Donald B. MacMillan.

SCHOOL LECTURES

Elementary Schools

October 1. The Crusades.
October 8. The Greeks as Builders and Artists.
October 22. Japan and Its People.
October 29. Roman Life.
November 5. South America in the Days of Pizarro.
November 12. China and Its People.
November 19. The Philippines.
December 3. The People of Australia and New Zealand.
December 10. Indian Life.

High Schools

October 21. Prehistoric Man.
October 28. How the Schools Can Use the Museum.
November 4. Babylonian and Assyrian Contributions to our Civilization.
November 11. Life and Art in Ancient Egypt.
November 18. Back of the Greeks.
November 25. Art and Culture of Greece in the V Century B. C.
December 2. Roman Life.

NEW MEMBERS.

The following members have been elected.

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FORM OF BEQUEST

I give and bequeath to the Trustees of the University of Pennsylvania the sum of.....dollars, in trust for the uses of the University Museum. (Here, if desired, specify in detail the purposes.)

SPECIAL NOTICE

In order that The University Museum may give appropriate recognition to the substantial gifts which have been already received, and which will hereafter be donated or bequeathed for the development of its resources and the extension of its usefulness, the Board of Managers have adopted the following classification for contributors and members, and have resolved that the names of the donors of aggregate sums of $25,000 and upwards, in cash, securities, or property shall be inscribed upon a suitable tablet or tablets, to be properly displayed in the Museum.

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A BRONZE BULL FOUND AT TELL EL OBEID BY THE JOINT EXPEDITION OF THE BRITISH MUSEUM AND UNIVERSITY MUSEUM.
Date about 4000 B.C. Height 27 inches.

THE
MUSEUM JOURNAL

VOL. XV PHILADELPHIA, DECEMBER, 1924 No. 4

THE EXCAVATIONS AT TELL EL OBEID[1]

BY C. L. WOOLLEY

TELL EL OBEID is a small isolated mound lying some four miles W.N.W. of Ur on the line of an old canal. Its discovery is due to Dr. H. R. Hall, who, working on behalf of the Trustees of the British Museum, partially excavated it in the spring of 1919;[2] he found the building concealed by the main hillock, traced its NE. and NW. walls and a part of the other two sides, and against the SE. face hit upon a hoard of metal objects, lions and other animals in copper and fragments of a great copper relief, which amply proved the importance and antiquity of the site. Dr. Hall has published preliminary accounts of his results in the *Proceedings of the Society of Antiquaries* (xxxii, p. 22, 1919), in the *Journal of the Central Asian Society* (ix, 3, 1922), and in the *Journal of Egpytian Archaeology* (viii, 3 and 4, 1922). It was in consequence of the discoveries made by him that, in the autumn of 1923, the Joint Expedition of the British Museum and of the Museum of the University of Pennsylvania undertook the complete excavation of the mound. In what follows I shall deal with this last season's work alone; the complete account, embodying the results obtained by the two expeditions, will form the first volume of the Ur publication series.

[1] Mr. Woolley's preliminary Report on the work of the Joint Expedition at this small site in 1923–24 was published by arrangement in the *Antiquaries Journal*, from which the abstract in these pages is taken and to which the reader is referred for the complete report with plans.—EDITOR.

[2] In the article by Dr. Leon Legrain in the September JOURNAL, page 151, there occurs a statement that the temple of Ninharsag at Tell El Obeid was discovered by the Joint Expedition. This is a mistake. As Mr. Woolley states, the building was discovered and partly excavated in 1919 by Dr. Hall while working for the British Museum alone. The remarkable lions' heads and other objects in bronze now in the British Museum were recovered by Dr. Hall at that time.—EDITOR.

THE TEMPLE

In treating of the little mound where Dr. Hall was the first to work, it is simplest to begin with a general description of the building as found. The site was occupied at different periods by three different structures, of which the earliest is today the best preserved, and is our principal subject. Set upon a little natural hillock, an "island" rising above the alluvial plain, was a solid platform whose foundations were of stone, its walls of burnt bricks laid in mud mortar for the lower part and of sundried bricks for the upper, and its core of crude brick; it was approached by a flight of stone steps, and from the SW. side there projected a smaller platform of crude brick throughout, containing a second flight of stone steps. On the main platform stood a temple, now completely ruined.

A fortunate discovery enables us to name and date the building. About eight metres away from the façade, near the front of the stairway, there was found the foundation inscription, thrown out here when the wall in which it had been imbedded was destroyed. It is a tablet of white marble, shaped as a plano-convex brick, measuring nine centimetres by six, and it bears the following text:—"Nin-khursag: A-an-ni-pad-da, king of Ur, son of Mes-an-ni-pad-da king of Ur, has built a temple for Nin-khursag" (pl. XLV, c). The name A-an-ni-pad-da is new to us; his father is known as the first king of the First Dynasty of Ur.

The Sumerian king lists, drawn up about 2000 B.C., place immediately after the Flood the First Dynasty of Kish, then a Dynasty of Erech, and third from the Flood the First Dynasty of Ur; the names of the kings are given, and the number of years of their reigns.

Now the first two dynasties are obviously fabulous, or if they have a historic background it has been largely swamped by legend; for the shortest reign attributed to any king is one of a hundred years, and the longest are of twelve hundred each! But when we come to the third dynasty there is no such wild chronology; the other three kings have the reasonable reigns of 30, 25, and 36 years each; Mes-an-ni-pad-da is allowed eighty years, which seems improbable for the founder of a dynasty, but the improbability disappears when we find that a son, with a name so like his father's, reigned as king of Ur but is not mentioned in the lists; there has clearly been a confusion, and the two reigns have been lumped together and attributed to the more famous name.

At least the Tell el Obeid tablet makes the First Dynasty of Ur historical by confirming the name of its founder, and it makes it probable that from this time on the king lists are based upon contemporary written documents. The actual date of A-an-ni-pad-da must remain rather vague. There are at present no means of determining which of the various dynasties given in the Sumerian lists were really consecutive, as they are there represented, and which of them overlap, as contemporary kings disputed the hegemony of Sumer (an overlap in some cases is known to have existed); a simple dead-reckoning based on the king lists will therefore not give a correct result. In the *Cambridge Ancient History*, Professor Langdon brought the date of the First Dynasty of Ur down from 4650 B.C. to 4216 B.C.; subsequent discoveries have made him modify this further, and in the *Oxford Series of Cuneiform Texts*, vol. i, he gives *c.* 4,000 for the start of the dynasty.

Even this shorter chronology presents difficulties in view of the close resemblance of some of the objects found, and of the epigraphy of our inscriptions to specimens of the art and texts of Ur-Nina (*c.* 3100 B.C.) and it may yet be proved that the date of the First Dynasty of Ur comes well within the second half of the Fourth Millennium; but at present we can only say that the foundation tablet of A-an-ni-pad-da is probably the oldest historical record yet deciphered and his temple the oldest whose authorship and relative date are known.

This building perished, violently destroyed by some enemy it would appear, for not only the shrine itself but also the upper part of its supporting platform was overthrown, so that by the time the deserted site attracted the notice of a new builder the original structure was represented by a gently sloping mound whose top was no more than three and a half metres above pavement level.

Who the new builder was we cannot say, for the large square burnt bricks which he employed bear no written stamps, only the impressed finger marks characteristic of the old plano-convex bricks, and no objects from his temple were found. We can only say that he worked on a far more ambitious scale than did his predecessor. At this time a small canal seems to have run between the temple site and the rising ground of the cemetery to the south of it. The old temple mound was made to form the core of a large brick platform which, with stepped foundations resting on the brick débris, descended in terraces to the edge of the canal, whose bank was roughly revetted

with burnt brick and, along the limits of the terrace, faced with a brick water wall still standing over two metres high. The terraces were of grey mud brick, now weathered to a uniform slope so that the steps can no longer be distinguished, and thinning down to nothing at its edges so that the outline of the building, except where it is given by the water wall, could not be determined; the highest platform was virtually on the level to which the old ruins survived, but its area did not coincide with that of the original, extending well to the southeast of the First Dynasty platform. Of the temple of this second period only a scrap of wall foundation in burnt brick remained.

Very little more survived from the third period. This time the builder seems to have found his predecessor's terraces at least in tolerable condition, for he used their upper platform as the base for his new temple, whose foundation courses rest at practically the level of those of the second period. Only the foundations of a small corner of the building remain, but these are invaluable for the history of the site, for they are made of burnt bricks stamped with the name of Shulgi [Dungi], the second king of the Third Dynasty of Ur (*circ.* 2250 B.C.). With Shulgi as the builder of the third temple, and A-an-ni-pad-da as builder of the first, it is tempting to assign the intermediate temple to a ruler of the Second Dynasty of Ur; according to the king lists the Second Dynasty should be nearer in date to the First than to the Third Dynasty, and this would be quite consistent with the use in the intermediate building of flat bricks (and flat bricks were already employed by the close of the First Dynasty) distinguished by finger prints, a survival from the earliest days of brickmaking.

King Shulgi was the last man to build at Tell el Obeid; when his temple fell in its turn, the site was deserted, and for four thousand years the sun's heat has crumbled the bricks, the rain has swept the mud of them down to the gradually rising plain, and the wind has carried off their dust, until the ruin dwindled to a little mound whose top was capped by a few bricks of the Third Dynasty king, and its slope carved from the terraces of his nameless forerunner. But this same terrace, a solid casing of well laid mud brick impervious to rain and air, has preserved exactly as it fell the underlying debris of Nin-khursag's oldest shrine. When we came to excavate the site we were obliged, in order to find the older walls, to cut down through the brickwork of the second period terrace, which, in front of the

southeast wall, was over two metres thick; so hard was this that the entrenching tools ordinarily employed by our men were useless, and recourse was had to heavy railway picks. Under this grey brickwork lay as thick a layer of red crude brick, if possible harder still, representing the walls of the first temple, fallen in great masses and still bound together by its grey mud mortar; in and under it were the objects which had adorned the façade.

The plan of the early temple platform is, in intention, a rectangle with its corners orientated to the cardinal points of the compass, having on its southeast side a staircase projection and on its southwest a square platform projection also containing a staircase; the main building is (for its lower courses) of burnt brick, the two projections are of crude brick. At first sight it might appear as if the projections were accretions to the original plan, perhaps even of later date; but they are in fact strictly contemporary, or rather, they are equally essential parts of one original plan, while in the process of construction the "accretions" precede the main element of the design. The wall of the principal platform is of burnt brick, but it is not carried the whole way round the rectangle; at each projection it comes to a stop with a clean end abutting on the face of the mud brick, which must therefore have been laid first. It was probably not without reason that this was done. The main wall was the containing wall of a platform which had to be filled in solid with brick earth and mud brick; this would be easy enough at first, but as the wall rose (and it rose, as we shall see, to a considerable height) it would be impossible to bring in the filling material over the top, and ramps for the basket men would be necessary. Now each of the planned projections was, or contained, a stairway, and it was an obvious economy to build these first, so as to have ready-made a ramp which would not need to be removed after the completion of the platform. There are other features which show not only that this course was followed, but that it proved not altogether a blessing. The primitive builders, starting with the southwest projection, laid out the two long sides of their platform as nearly parallel as could be expected, and they joined these up at the northwest end with a straight wall which, if it was not quite at right angles, was not discreditably far from being such. But on the southwest side the long gap in the burnt brick work seems to have put them out in their measurements, for the section southwest of it is much too long; and on the southeast face everything went wrong.

In the first place the staircase is all awry with the axis of the platform, perhaps because the builders had to set it out in relation to a wall which was still imaginary. Anyhow it was built, and it effectually prevented the bricklayers engaged on the burnt brick work from sighting through from the south to the east corner, with the result that the two sections of the southeast wall are neither at right angles to the side walls nor in line with each other: as they would, if produced, meet just in the centre of the stair ramp, it looks as if a man had got up on this to give the direction for the two gangs and, as almost invariably happens in such a case, had stood not *on* the line joining the two points but slightly *behind* it. Certainly on paper the ground plan looks oddly inefficient, but its very oddity, if the explanations given above are in any way correct, may help us to understand the simple methods of construction employed on this early temple.

A little way east of the temple, down the slope, we found two rectangular blocks of brickwork set parallel to each other, in the tops of which were shallow troughs running from the inner edge of the brickwork back to about half its width; the insides of the troughs were blackened by fire, and they contained remains of burnt wood or charcoal. The whole thing is the ordinary kitchen range that can be seen in any native cook shop of the Near East; Tell el Obeid lies sufficiently far out from Ur for a visit to the temple to have been a regular excursion, and I can only suppose that some enterprising caterer set up a restaurant in the temple grounds to supply lunch for the pious excursionists.

Nearly all the objects found in the ruin were of an architectural character, and a careful study of the positions in which they lay and of the manner in which the walls of the building had collapsed enables us to restore the façade and to assign the several classes of objects to their original places in the scheme of decoration with tolerable certainty; the full arguments for such a reconstruction of the temple must be held over for a final publication, but here it will be simplest to deal with the objects in the order which they may be presumed to have occupied.

Columns

Scattered both under and over the débris of the fallen walls were numerous fragments of timber, always circular in section, sheathed with plates of copper held together and made fast to the

wood by large-headed copper rivets. The fragments differed considerably in diameter, and therefore do not seem all to have fulfilled the same function; some, the most solid, were almost certainly column shafts and can be assigned to a kind of porch which stood in front of the main door and stretched out to the stair head; others are probably roofing beams from the same porch and from the shrine itself: the dedication texts of later kings give authority enough for the assumption that the roof of a temple might have been of timber overlaid with metal. Lying together on the white floor in front of the platform were two columns of another sort: these were of wood which had been thickly covered with bitumen and encrusted all over with square and triangular tesserae of light red sandstone, black paste, and mother of pearl; each tessera had at the back a loop of copper wire which was driven into the bitumen and so made the piece fast in its place. These columns were 2.30 m. long and 0.90 m. in circumference; they came from the main door of the shrine. Fragments of columns similar but with smaller tesserae, found both by us and by Dr. Hall, appear to have belonged to a second door in the northeast side of the shrine.

Copper Bulls

Remains were found of four copper statues of bulls, made in the round; two of these were in such a condition that they could not be removed (indeed, one could only with difficulty be recognised), and two were brought away, of which one was headless.

The animals, which stood 0.60 m. high and were 0.70 m. long, are represented as walking along slowly with the head turned sharply outwards over the left shoulder; they clearly were meant to be seen from the left side only, and it is probable that they stood in a row along a low step or ledge between the top of the platform and the wall of the shrine.

The bull was carved first in wood, the body, legs, and head in separate pieces which were morticed together and secured by copper bolts; then the legs and head, and last the body, were covered with thin plates of copper whose edges overlapped and were held down by copper nails; the tail, horns, and ears were attached afterwards.

Artificial Flowers

The stem and calyx of the flower is of baked clay, the petals and corolla of white limestone, red sandstone, and black paste: the

corolla was always either red or white; of the eight petals four were white, two red, and two black, these being arranged crosswise. A large lump of bitumen was pressed round the tall corolla, sloping down to the scalloped edge of the calyx, and the petals were set in this also sloping downwards and outwards so as to make the blossom sharply convex. Each petal had behind it a loop of copper wire, the ends of which passed through holes in the calyx and were twisted together underneath.

The total length of a flower varies from 0.18 m. to 0.37 m. Generally, though not always, there are near the pointed base of the stem two small budlike projections; low down in the stem there is a small hole pierced right through, as if for a string, and high up near the calyx bears a cut made horizontally in the wet clay.

When Dr. Hall found specimens of such flowers, he suggested that they were rosettes for wall decoration, the long stem being inserted in the crude brickwork and the circular top resting flush against the wall face. Now that we have a number of specimens to judge from (over fifty entire examples were found), this view, which had seemed to be justified by the precedent of the small slender cones which Loftus found at Warka driven into the mud-brick wall so that their round tops formed a pattern on the surface, proves to be untenable. The size and length of the stems, and their tapering shape, are against the theory; the flowers were always found loose, never embedded in the wall, though there were plenty of great masses of brickwork fallen intact wherein the flowers ought to have retained their places if they had been fixed there; the fact that the stems were almost always broken, which would not have been the case if they had had the protection of the brick mass, shows that they were free; and the hole through the stem and the nick in it could not be explained if that stem had merely served as a peg. The flowers must have stood upright in the open, the pointed ends of the stems resting in shallow sockets such as the finger print holes in the upper surface of the plano-convex bricks, a thread or wire passed through the hole low in the stem, thus stringing the flowers in line, and another thread or wire running from flower to flower and twisted once round each stalk just below the calyx, where the nick in the clay prevented it from slipping, kept the row upright; the two strings would be stretched taut and made fast at the ends to posts or attachments in the wall; there might be just enough play to allow of the flowers swaying in the wind! Details of the positions

wherein the flowers most often occurred showed that they were closely connected with the standing figures of bulls described above, probably occupying a slightly lower shelf than they; the bulls would thus seem to be walking in a meadow full of daisies.

Frieze of Copper Bulls

Higher up on the façade of the shrine there ran a continuous frieze, of which the greater part was found fallen down below; it consisted of a series of reliefs in copper representing young bulls. Each is lying down with three of its legs doubled up under it in repose, but the far front leg is raised with the hoof firmly planted on the ground as if the beast were just in the act to rise; the bodies are shown in full length profile, but the heads are turned towards the spectator; whereas the bodies are in low relief, the heads are modelled in the round, and project boldly from the general plane, giving an extraordinary vitality to the figures.

Technically these figures are most interesting. The body of the bull was carved on the surface of a stout board, and to this a thin wash of bitumen was applied. The head of the animal was cast hollow in copper, the hollow was filled up with bitumen, and a wooden peg was let into this and made fast with a copper bolt put through the back of the head, and the end of the peg let into the neck of the wooden relief. Then a thin plate of copper was laid over the body and hammered down on to the wood so as to reproduce all the carved detail, the neck being brought up so as to overlap the casting, and the edges of the sheet bent over the edges of the board and nailed down to it.

The total height of the frieze was 0.22 m., the average length of an animal 0.60 m. To attach the frieze to the wall, copper holdfasts were inserted between each pair of animals. These consisted of bars of metal, rectangular in section, the ends of which went through two holes set vertically in the plain field of the frieze and were carried through the wooden background; then they were twisted to form two circular rings, the first vertical, the second horizontal, which were laid between the crude bricks of the wall and secured by wooden pegs passed through them.

The frieze, which ran along the whole of the southeast façade of the shrine, is represented by twelve more or less complete figures found in the ruins.

Inlay Frieze

Above the frieze of copper heifers ran a second, of the same size but of very different character. The frieze was framed above and below by a narrow border of copper nailed over wooden battens; the background was a wooden board (now wholly perished) which was secured to the wall by copper holdfasts exactly like those of the lower frieze except that in this case the holdfasts did not come to the face of the panel but were fastened to the board only. Over the wood was laid a thick layer of bitumen, and on this the design was worked out in mosaic. The figures were cut in white limestone or in shell; if in the latter they were always made up of a number of small pieces carved separately, if in stone they were sometimes composite, sometimes in a single piece; the background was made up of tesserae in black paste of varying sizes, cut to fit into their places: as usual with Sumerian inlay, each piece was secured by a loop of copper wire fixed into it from behind and forced into the bitumen backing.

Large fragments of this frieze were found and removed intact. The most interesting gives us a *genre* scene of pastoral life. At one end are two men milking cows; the men are squatting awkwardly under the cows' tails (the same position for milking is adopted today by some of the Lower Mesopotamian tribes) and hold long slender milking vessels; in front of the cows stand the calves, duly muzzled so that they cannot get milk for themselves. In the centre is a byre. It is built of big reeds (?) bound with ropes; it has a kind of entrance tower with a window above the door; the door itself is flanked with spears and adorned with the peculiar side loops familiar to us from later pictures of Sumerian buildings; above is a sort of crescent which may be derived from the sacred horns. From the door of the byre issue two heifers. On the other side of this building are four men, dressed in the usual sheepskin skirt, engaged in straining and storing a liquid which we may guess to be the clarified butter resulting from the milking operations conducted at the opposite end of the scene. The man on the extreme left has plunged his hand into a great jar, presumably to draw out the liquor from it; the next man is pouring the liquid from a small jug into a a strainer held by his fellow, from which it runs down into a big spouted jar set on the floor. The fourth man has between his knees a great store jar destined to receive the strained liquor. From every point of view the panel is of the utmost importance—for the light it

throws on the domestic life of the Sumerians at this early period, as an illustration of the art of the time, and for the possibility it gives of dating other objects; its value in this last respect will be seen when we come to deal with the tombs of Tell el Obeid.

In the milking panel the figures are cut in limestone. The stone is not of very good quality, and the fact that it was selected for a scene so important might be taken as evidence for the use of colour—the stone being smoothed over with plaster and painted. Certainly in finished workmanship it does not compare with the panels wherein the figures are carved in shell. The complete examples of shell inlay that were found represent a procession of bulls, each animal made up of six or seven pieces, all carved with the utmost delicacy of relief; the general type is the same throughout the whole frieze, but in the drawing of each animal there are slight differences which relieve what might otherwise have been monotonous. It is probably due to the mere accident of preservation rather than to any sameness in design that the bull figures seem to form so large a proportion of the frieze; connected with one panel, though no longer actually attached to it, was found a small relief plaque of a human headed bull on whose back is a lionheaded bird, a subject obviously mythological. In this case the plaque is formed of a single square of limestone, and the design is cut in true relief; but traces of black colour applied to the background prove that the effect was identical with those parts of the frieze where the figures were in silhouette inlaid against a black field. Besides this, isolated fragments representing human figures, the goat, the ibex, etc., both in shell and in limestone, are evidence of variety in subject matter. Perhaps belonging to the same frieze, perhaps to another set higher up in the façade, are a number of birds, silhouetted in limestone; only one of these was found with its background and copper holdfast more or less complete (the dimensions of the panel are the same as those of the bull sections), but nine or ten birds are represented by whole figures or by fragments, so that there must have been a considerable length of frieze of this sort. There can be little doubt that they were coloured, for the modelling is of the most summary description, and the surface of the stone poor and rough; the evidence of the exact positions in which they were found tends to show that they formed a separate frieze.

Limestone Wellhead

This was found in fragments near the foot of the main flight of stairs. In contrast to the objects hitherto described, it is curiously primitive in style and execution, and might well have belonged to an entirely different period, but must certainly be assigned to the same date as the temple itself; indeed, it is tempting to connect it with a fragment of a stone vase dedicated in the temple whereon is an inscription recording that one Ur-Nannar made here a well for the service of the goddess and for the life of King A-an-ni-pad-da. The well head is decorated with figure in two zones. In the upper register there are small figures bearing palm leaves, etc., about what seems to be a statue of a lion on a raised base, the scene being twice repeated. In the lower register, of which only the upper part is preserved, the figures are on a much larger scale; a god, facing right, receives the worship of four mortals, two large and two small. The men are beardless, and wear a skirt and a cloak folded over the left shoulder; the faces are grotesque, and the drawing of the bodies is clumsy in the extreme

Inscriptions

The foundation tablet has already been mentioned, and so has the vase fragment with the well inscription. The only other object inscribed, apart from two or three very small pieces of clay tablets whereon no more than a character or so was preserved, was a gold bead of scaraboid form on the rounded top of which was the name of A-an-ni-pad-da, king of Ur. The bead was found in the débris of the fallen wall, and most probably had formed part of the foundation deposit; it is difficult to see what else it can have been doing in the building. It is, I suppose, the oldest piece of royal jewellery known.

THE CEMETERY

The Cemetery lay on the second low mound, another "island" site, just south of the temple. A deep trench cut along its highest ridge showed that the greater part of the rise was natural, formed of river silt, and that at a very early period, long antecedent to the building of the first temple, it had been occupied by a settlement. There were remains of huts built with daub and wattle walls, with stone hinge sockets for the doors and floors of trodden earth; the objects found in these were all of a primitive type, rough stone querns

and rubbing stones, painted handmade pottery, incised wares, and plain rough cooking pots, together with flakes of flint and obsidian, clay sickles, etc. Graves of the same period had occupied other parts of the mound.

Later, the settlements were abandoned, but the use of the mound for burial purposes continued, probably after a considerable interval, for the older graves, if they had not been forgotten, at least no longer commanded any respect, seeing that they had been ruthlessly destroyed to make way for the later interments. And in these the objects found were quite different from the contents of the first graves; the pottery was wheel made, painted wares were wholly lacking, and together with flint implements there were tools and weapons in copper. Only one grave of the early type was found by us intact, so thickly were the later burials set, side by side and one above the other; often it was impossible to say to which particular interment the tomb furniture belonged, so confused were bones and objects alike; anything like a sequence was therefore difficult to obtain. But it was clear that these later interments represented a long period, and at least the limits of this could be fixed. It starts after the close of the painted pottery time, whenever that was, and it ends before the beginning of the Third Dynasty of Ur, i. e. before 2300 B.C., for none of the objects found could by any possibility be attributed to that date, the archaeology of which is by now becoming fairly familiar to us. Within these limits, we find varying forms of interment. There are plain interments with the body in the contracted "embryonic" position, others with the body extended at full length, burials in narrow trenches lined and covered with bricks (and the bricks are those of the second building period of the temple site), and burials in circular or oval clay "baths." A few of the graves with contracted burials, which, for reasons of depth, position, etc., must fall early in the period covered by the cemetery, contained pottery vessels identical with those represented on the inlay panel of the A-an-ni-pad-da temple; the depth of the bath burials and their position on the outskirts of the cemetery make it almost certain that they fall late in the period and link up with the bath and pot burials familiar to us at Ur, where they continue in use right down to Persian times. In a preliminary report such as this, it is impossible to attempt anything like a chronological sequence of the tombs, which could only be established by a detailed examination of them all; indeed, the material at our disposal may well

prove insufficient to establish such at all except in the roughest outlines; here it is enough to say that from the hundred graves dug we have obtained a great mass of objects belonging to a period more or less defined which, archaeologically speaking, was hitherto altogether unknown to us.

The pottery is all wheel-made and unpainted; the forms are very varied, decoration is confined to occasional rope-mouldings in relief, incised ornament (rare), and sometimes the employment of reserved slip ornament; whereby a slip is applied to the surface of the pot and then partly wiped off so as to expose the body clay. Stone vessels are nearly always of bowl form; decoration does not extend beyond a simple notching or line engraving of the rim; the materials are limestone, aragonite, and greenish grey stone. Copper vessels are generally of bowl form, though one large cooking-pot of curiously modern shape was found. Copper tools include axes, celts, knives or daggers, pins (one has a head of lapis lazuli set in gold). Stone implements are most often *coups de poing* with a rounded and flattened head, almost spoon-shaped; shorter pear-shaped and nearly circular *coups de poing,* knife edged and saw edged flakes of flint and obsidian; rough rubbers; a few miniature polished celts. Occasionally the copper and stone implements were imitated in clay; these imitations seem to belong for the most part to the destroyed graves of the earlier period, as several of them are painted. Beads are of lapis lazuli and carnelian, and as a rule very few were worn, a set of not more than a dozen beads on a long string being more common than an entire necklace. In some of the graves there were shells used as palettes and containing either soft red haematite paste, presumably for rouge, or green malachite paste, which was probably employed, as by the Egyptians of the pre-dynastic and early dynastic times, as an eye paint. A curious object in copper was perhaps the head of a ceremonial staff.

As long then as the Nin-Khursag temple existed, the neighbouring mound was used as a graveyard; even after its destruction though the old cemetery fell into disuse, the tradition seems to have continued, for graves of the Kassite period were found in another mound about a mile to the west and a few hundred yards to the east there was a ruined cemetery of a later date. It would certainly appear that the worship of the goddess was in some way associated with the idea of burial. Nin-Khursag is known as a goddess who took part in the work of creation. In the decoration of her temple

a very prominent place is given to representations of cattle, and we have the domestic scene of the milking of cows. The bull is a regular Sumerian symbol for divinity, but this would not explain the cow element; but the cow is elsewhere known as a symbol of fertility, of the preservation of life, and for a primitive pastoral people with whom cow's milk is a staple diet, this is a very natural conception. In the graves, the presence of tomb furniture shows a belief in a future world, and the embryonic attitude of the dead in the earlier graves connects death with new born life; may not then the creator-goddess be thought of as safeguarding the continuity of the life that she has given and bringing to fresh birth those whom life has outworn?

HEAD OF ARIADNE

This marble head, said to have been found in Asia Minor, resembles closely one in the Athens Museum and another in Berlin, identified by Studniczka as the head of Ariadne. The statue to which the head belonged was evidently one of which several copies were made, but only the heads remain. It was the work of an artist of the fourth century B. C. executed in the best style of the period. Moreover, the head now exhibited in the Museum has a quality of its own that raises it to a high position among its contemporaries. Its claim to distinction rests on its fineness and depth of feeling, the character and personality, so well expressed, that make one feel in the presence of an individual and not of a type. It is not the head of a deity but the head of a woman dignified by human serenity combined with human frailty.

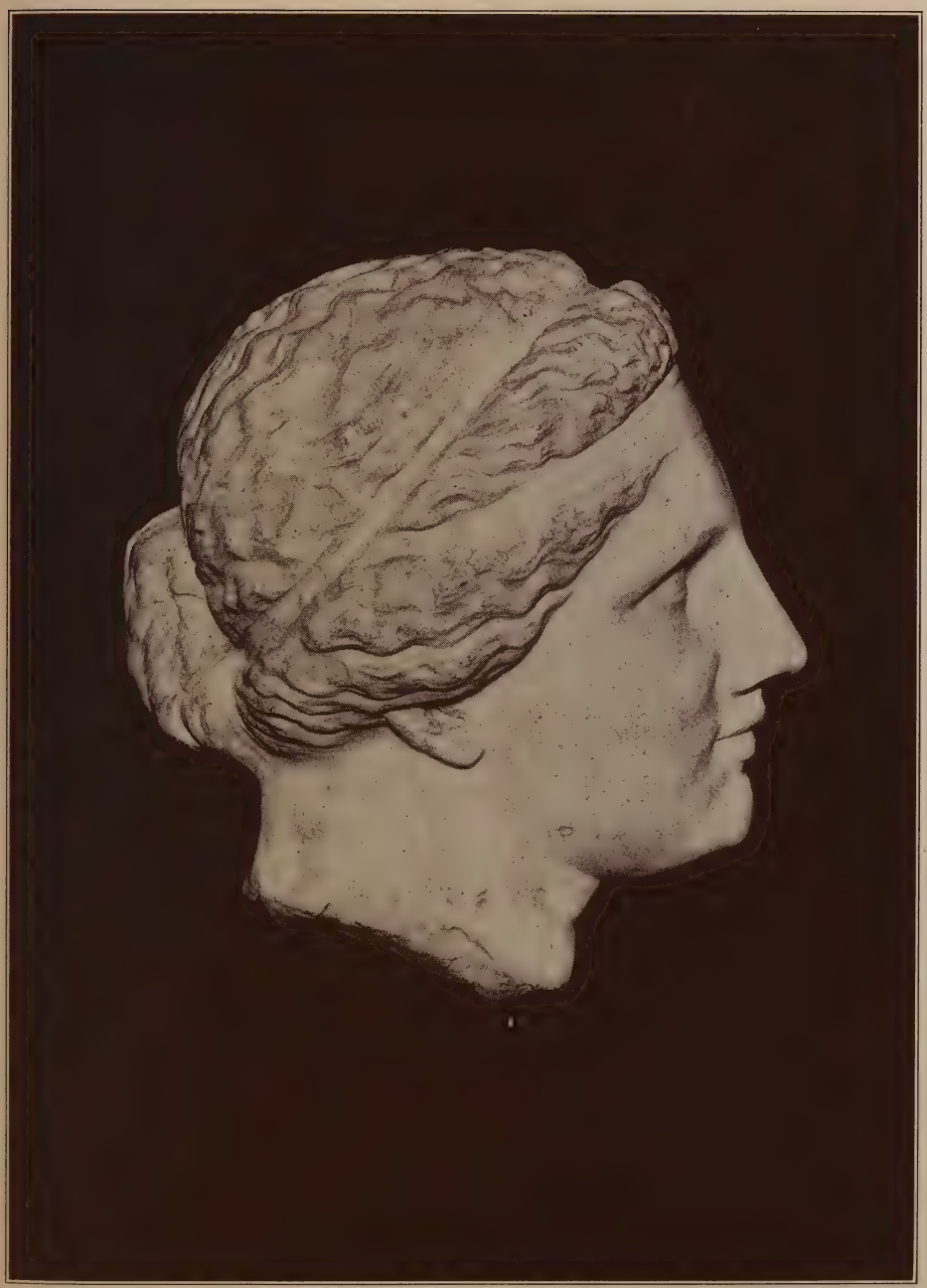
Head of Ariadne.
Gift of Mr. Eldridge R. Johnson.

HEAD OF ARIADNE

(Continued)

The only imperfection in this sculpture is the broken tip of the nose (restored) and a slight abrasion in the upper lip. There is a slight break on the folds of the hair on the right side below the bands, as if there had been at that point a contact in the sculpture. The material is pure white marble and the head is larger than life size. It has been acquired through the generosity of Mr. Eldridge R. Johnson.

PLATE III



Head of Ariadne shown in Plate II.

BUILDING OPERATIONS

The third section of the University Museum has been completed and delivered to the Trustees in December. This third section is the part that extends from the finished rotunda eastward and will connect with the central rotunda when that part of the building shall have been completed.

The place of the central rotunda will be at the extreme left hand of the picture on the opposite page. It will be the principal feature of the fourth section of the building which will also contain the main entrance facing the courtyard seen in the foreground of the picture. The architects have just been commissioned to prepare the plans for the fourth section. The third section just completed is seen in the left of the picture. It consists of two stories, the central part of each consisting of a large hall communicating on either side with a series of smaller rooms. The great hall on the upper or main floor is lighted by means of a clearstory and the side rooms by skylights. The great hall on the lower floor is lit artificially and the side rooms by windows. The two great halls, above and below, will contain the Egyptian exhibits. Some of the smaller rooms will be devoted to the same purpose. Others will contain the Palestine collections from Bethshan and the collections from Ur. The Arabic collections and the collections from Persia and India will also be included in this third section.

The University Museum as it appears from the Northeast after the completion of the third section, which is seen at the left.

CHINESE SCULPTURE RECENTLY ACQUIRED

A number of important pieces of Chinese sculpture accumulated during the last two years deserve special mention, though at this time no attempt at an extended treatment can be made. They are published here that they may be allowed to speak for themselves. At a later time we may hope to follow this publication with more adequate comments on each piece.

BRONZE STATUE OF KWANYIN

There are few works even of the best period of Chinese sculpture that have so much charm as this precious little Divinity in Bronze. Her height from the sole of her foot to the top of her tall headdress is 28 inches. The figure is nearly solid, though from the shoulders down there is a narrow cavity where a slender core had been set in the casting. The entire surface of the bronze was covered with gold, now nearly all removed except on the face and neck and parts of the headdress.

The posture of the figure, evenly balanced on both feet, firmly planted on the ground and rising trunklike to support the well poised head with its sensitive features, so mobile yet so still, so full of wisdom, of tenderness, compassion and a sense of inward peace, yet unmarked by a trace of human emotion, has a wonderful effect of outward dignity and inward grace.

In her left hand the goddess holds a pomegranate in front of her breast. Her right, with tapering fingers, is raised towards the necklace as though arrested in the act of telling her beads. Her robes, folded freely about her, describe graceful lines that veil but do not extinguish the human form within. That frail and sensitive form becomes the vibrant core of the image, with its outward strength and dignity, its calm assurance, its harmony of line and direct simplicity. The human form indeed is not portrayed but it is nevertheless revealed, for it becomes the living thought within, about which the elements compose themselves like the vestments of a spirit.

The image was found in 1918 in the bottom of a river, according to our information, "near the Aipao village which was the ancient seat of the Tsien-Ning temple" The village mentioned is a suburb of Liao-Yang, south of Mukden, Manchuria.

As to the date of its execution it would seem at first sight as if we could hardly do otherwise than assign it to the T'ang Dynasty, even to the very beginning of that period—the early years of the seventh century, yet it is necessary to be cautious. There are some indications that the date may be several centuries later, but to whatever period it may belong it represents the highest refinement of Chinese Art.

Bronze statue of Kwanyin.
Gift of Mrs. Emory R. Johnson.

THE BUDDHA IN LACQUER

The technical process of this sculpture is rarely found in surviving examples, though it was known in China as early as the T'ang Period to which this specimen belongs. It consists of lacquer laid upon a cloth of coarse texture. The entire figure is hollow and the fabrication is little more than an inch in thickness. The position of the figure which is life size is very unusual and interesting. It is moreover a striking composition in which a simple idea simply expressed comes out with force and eloquence. It will be seen that the drapery is treated with greater freedom than in the stone, wood and clay figures illustrated in these pages, a treatment in keeping with the semifluid nature of the medium in which the artist worked which readily adapted itself to the natural folds of the textile fabric on which it was laid.

The provenance is unknown. It is said to come from an ancient monastery in North China. Accompanying it are a set of old writings that were found in the interior of the statue and which have not yet been translated.

PLATE V

Lacquer statue of Buddha.
Life size.

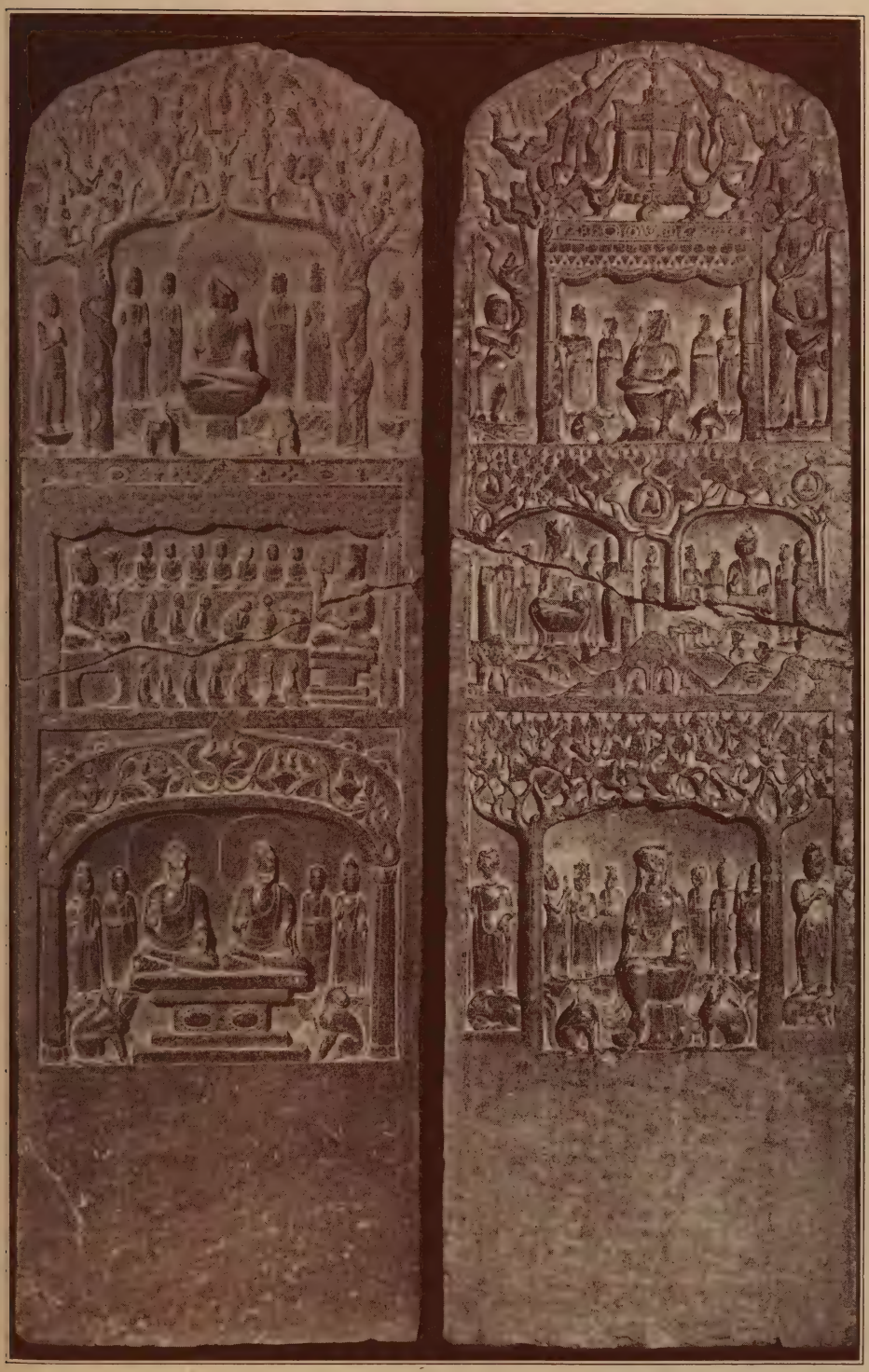
A MEMORIAL STELA

This monument was recently found on the site of the ancient Buddhist temple of Tien-lung-san in the Province of Shensi and northeast of Sian-fu. On the obverse are seen deep niches of architectural design filled with Buddhist figures. At the very top is a little shrine guarded by two descending dragons supported below by angels. On the reverse are other niches with more figures. Here the upper group is enclosed in an arbour with little figures emerging from the blossoms of the trees. On the two edges, figures in bold relief repose in niches and on lotus flowers. On the obverse below is an inscription of which a translation has been furnished to the Museum by Mr. Sasaki Y. Shigetsu. A brief paraphrase of this translation is given below. The date given is in the Sixth Century.

> Phenomena spring from the inmost consciousness. Phenomena and consciousness together make up the universe. . . . .
>
> Chung San plucked the weeds in Lung Hai and helped the people in their peril. Now, mounted in a vermilion cart with a blue canopy he, with his mysterious voice, greets the generations. . . . He emaciated himself to enlighten the people and illuminate his own soul. For the sake of Buddha he has done all this. . . . Therefore his relations have set up this stone with reverence, this rare stone that they brought from a distance. On Buddha's birthday they set it up in the sixth year of Wu Ping of the Chi Dynasty. It is eight chih tall and carved with many figures and dragon trees by the heavenly skill of the artist.
>
> The sacred images face the south . . . and it leads the way to Nirvana, like a stairway hung in the sky. Pray that you may not die till you have seen it. . . . Pray for long life, to live as long as stone or metal lives in the earth, as long as the glory of the sun and the moon in the sky.
>
> We offer our reverence to His Majesty the Emperor; we offer it from our hearts that are purified.
>
> We pray on behalf of his hundred officers that the eight misfortunes may be removed and that the three adversities may be averted. . . .
>
> Truth is neither new nor old. It is identified with all things as if words were things.

PLATE VI

Reverse Obverse



Buddhist Stela, obverse and reverse.
Height 7 feet.

A PAIR OF STONE LIONS

These vigorous sculptures attributed to the fifth century, are probably not surpassed by any surviving works of the period. Moreover they illustrate in a conspicuous degree some of the qualities that belong to the earlier periods of Chinese sculpture and that are not so marked in the later periods. These qualities are solidity and strength. The lines are cruder but not less expressive. The modelling is bolder and less finished but even more forceful. The delicate surfaces of the fine sculptures of the T'ang, for example, are absent and details that would receive some recognition on the part of T'ang sculptors are ignored entirely by the earlier artists. The very erect position, the vertical pillarlike front paws, the massive ferocity all are qualities that mark an early stage in the history of Chinese sculpture.

PLATE VII

One of a pair of stone lions. Fifth Century.
Height 5 feet.

A PAIR OF STONE LIONS

(Continued)

These lions were placed in the gateway of some temple, now unknown. Their duty was to guard the shrine from all enmity and evil. They therefore embodied the conceptions of power and endurance. Eternal vigilance was their portion. It must be admitted that the fifth century sculptor expressed these conceptions with much success. His chief motive evidently was stability combined with energy. All the rest that he sought to convey follows quite naturally in these very impressive sculptures. It is an art that contains great promise and that already records a great achievement. Though the original place of these stone lions is not known, it is reported that they were found isolated at Chen Chow in Honan Province half buried in the earth. No remains of a temple were discovered.

One of a pair of stone lions. Fifth Century.
Height 5 feet.

A WOODEN STATUE OF KWANYIN

Wooden statues of Kwanyin in an attitude similar to this are not infrequently seen in public and private collections today. This example is carved from a single piece of wood except the hands that are joined at the wrists. The natural surface of the wood is nowhere exposed, the whole figure being finished in gesso overlaid with pigments and gold leaf. The seat on which the figure rested is missing; otherwise nothing has been lost. In the back there is a large and deep recess evidently intended for a reliquary. A single lock of hair is looped across each ear just above the elongated lobe, a feature that this statue has in common with the bronze figure on Plate IV.

Similar wooden figures have been assigned to the twelfth century and to the Southern Sung, a period that witnessed a high development in sculpture. Whatever period it may be referred to, and a definite decision is not yet possible, there is no question about the skill of the artist or about the spirit of the time in which he lived. True, it strikes a different note from the other sculptures here illustrated but with all that departure, the great traditions of the previous periods of sculpture have not been lost.

Wooden statue of Kwanyin.
Height 7 feet.

POTTERY HORSE

Such figures as this of which the Museum now possesses three specimens are sometimes found in tombs of the period of the T'ang Dynasty (618–906). The Chinese horse of the period is evidently of a type not otherwise unknown though presenting some easily noted characteristics of his own. It is presumed that the horse was placed in the tomb to serve his master according to a belief in some form of service after death. It is made of a fine light cream coloured clay, quite soft. The glaze on this as on other figures shown are green, yellow, brown and cream.

PLATE X

Pottery horse with coloured glaze.
Height 31 inches.

POTTERY CAMEL

Besides the horse, the camel was assigned in the form of a pottery image to serve his master in the tomb. Here he has his pack in place ready for a journey. The glaze on all of these figures is green yellow, brown and cream.

PLATE XI

Pottery camel with coloured glaze.
Height 31 inches.

POTTERY FIGURE OF A WARRIOR

The furnishings of the tomb of a man of station and consequence during the great T'ang period in China often included the figure of a warrior or a guardian spirit in armour, fierce and vigilant, trampling a monster under his feet. It is noticeable that he never carries any weapons unless his teeth and his doubled right fist might be so regarded. The idea appears to be that the personal appearance of the guardian should be sufficient to repel all hostile influences.

Pottery figure of a warrior, with coloured glaze.
Height 43 inches.

AN OFFICIAL OF THE DEAD

The dead man was not to be deprived of the helpers or councillors or ministers that had made life more agreeable and less troublesome for him. In this figure is seen such an official of high rank, haughty and selfpossessed, quite capable of rendering the sagest counsel. In this figure as well as the last and the next, the garments only are glazed. The face and neck and hands of each figure are without glaze.

Pottery figure of an official.
Height 40 inches.

ANOTHER OFFICIAL OF THE DEAD

This figure evidently represents one of lower rank than the last but still a person of importance. The pride and complacency of the other are replaced by a certain measure of diffidence. That the artist who made the figures consciously expressed these differences there can be no doubt. The difference in rank is also expressed in the costume. The horse, the camel and these three figures were found in one tomb and form a group by themselves.

Glazed pottery figure of an official.
Height 40 inches.

GROUP OF CLAY FIGURINES

These charming and dainty little figures apparently represent a great lady watching a performance by a pair of dancers who are accompanied in their movements by two wind instruments and one stringed instrument, played by three lady musicians. The illustration does not do justice to the group that was found in a lady's tomb at Honan Fu. No part of the figures is glazed but the clay is covered with paint in various colours and also with traces of gold in the robes of the great lady.

Group representing a lady with dancers and musicians.
Terrá cotta figurines, T' ang Period (618–960).

Detail of group in Plate XV.
Height of principal figure 15 inches.

Detail of group in Plate XV.
Height of figures 8 inches.

Detail of group in Plate XV.
Height of figures 8 inches.

The edges of the Stela shown on Plate VI.

GANDHARA SCULPTURE

Among its more recent acquisitions, the Museum is fortunate in having a group of the Graeco-Buddhist sculpture found in the Northwest of India and known as Gandhara. It represents the Greek Invasion of India following Alexander's campaign in 328–324 B. C. The art of Greece took hold of the ideas and manners of Buddhism and in the district of Gandhara in the Northwest on the banks of the Indus near Peshawar established a School of Sculpture that reveals in its surviving examples the twofold influence under which it worked. In the five examples that follow, the characteristic form and style of the school will appear.

Figure of the Buddha. Gandhara.
Height 32 inches.

Head of the Buddha. Gandhara.
Height 9 inches.

Profile. Head of Buddha shown in Plate XXI.

Head of the Buddha. Gandhara.
Height 16 inches.

Head of the Buddha. Gandhara.
Height 20 inches.

Group of Sculpture. Gandhara.
Size 6 x 11½ inches.

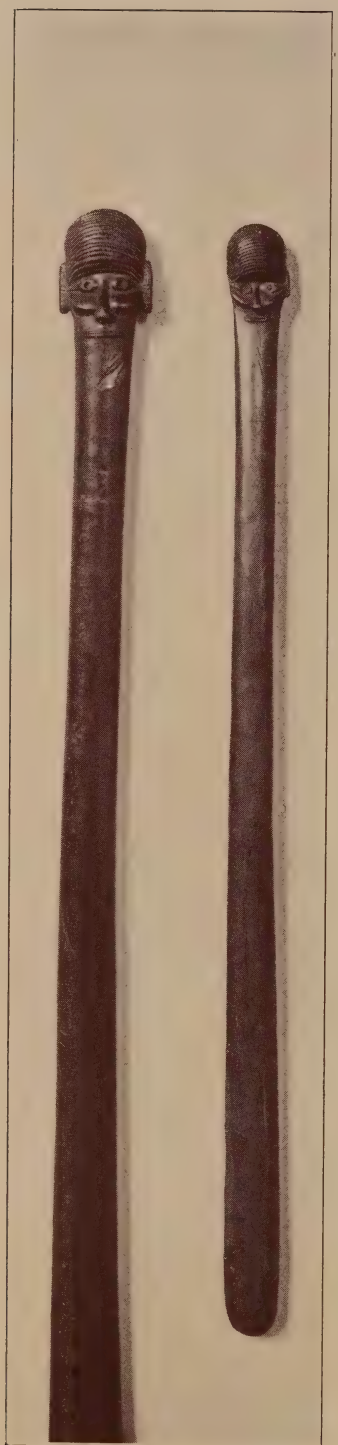
THE ORATOR'S STAFF

By H. U. Hall

AMONG the Maori of New Zealand and in the Samoan islands oratory had a peculiarly privileged position among the arts. In New Zealand, in an organized college for the sons of nobles, rhetoric was taught incidentally to the instruction formally given in the traditional lore which provided an essential part of the raw material of the art of persuasion. While in Samoa a special class of men of position outside the ranks of the semidivine aristocracy had become associated with the ceremonial exercise of the art, in New Zealand it remained an appanage of the aristocracy proper. In both regions the orators carried special insignia. The Maori nobleman had his two handed quarterstaff or wooden sword, hani (taiaha), Figs. 3, 4, 5; the yeoman orator of Samoa his flywhisk and long plain staff. In Easter Island, the farthest known eastern outpost of Polynesian colonization, a staff very similar in form and carved decoration to the Maori hani was carried as the distinguishing mark of certain persons, who, so far as can be gathered from our scanty information on the subject, seem to have represented a class more closely resembling the aristocratic orators of New Zealand than the middle class professional speakers of Samoa. Two examples of these Easter Island staves, known as ua, are pictured here, Figs. 1 and 2.

The hani of the Maori orator was displayed and wielded in the appropriate convention on a variety of formal occasions. The most usual of these was the ordinary assembly of the nobles and gentry of a particular tribe or district for the discussion of political affairs. In describing a meeting of leaders of the Kingites—a group which attempted to set up and maintain a monarchy among the Maori in the third quarter of the last century—Cowan[1] says: "Chief after chief arose from the crescent of natives, chanted the melancholy sounding *waiata* which is the usual preface to a Maori oration, some performing the *taki* (a little hop-step-and-jump up and down the *marae*) by way of punctuation marks between the sentences. Full of poetic metaphor and apt simile were the addresses of the Kingite

[1] The Maoris of New Zealand, p. 344.



1 2
Easter Island staves.

leaders—dignified, self-possessed orators, weighing their sentences well, but at no loss for words."

The Maori had a well developed poetry, epic or narrative, and lyric, and the connection between this and oratory was close. Thus we are told: "The fugleman in the hakas must be an orator if he is not a poet; for he has to invent rhythmic speeches of a highly figurative style to interval the choruses. All the imaginative power of the chiefs and priests in New Zealand developed in this direction, and speeches became as essential to every meeting of Maoris as they are to every type of assembly in England. The tohungas and chiefs grew adepts in moulding and rousing the feelings of their audiences; and though they revelled in figures of speech till the Oriental arabesque overlaid the original aim and meaning, as important an essential of the orator was the dramatic gesture and action. He paced hither and thither, at first with slow dignity; but when he had roused himself and his hearers to the requisite pitch, he postured, and grimaced, and acted as wildly as he would in a war dance. But the art ever remained an extemporaneous one; its products were for the occasion, and not meant to be handed down by tradition, like the songs and incantations."[1]

This may pass with some comment. It is evident that the noble or gentle—if we may indicate the essential of birth by a term which seems on the face of it a little inappropriate in the particular context—leader of the dramatic dance known as the haka must in fact be poet at the same time

[1] J. M. Brown, Maori and Polynesian, London, 1907, pp. 209, 210.

as orator, since it was of the essence of the matter that he had to clothe the products of his memory and imagination in speech moulded into decorative form and rhythm. And if his oration was topical and extemporaneous and not preserved for later generations in the retentive memory of the tohungas, priests and teachers in the Maori school of classical learning, it was in this school that he learned his art and stored his mind with the legendary history of the old gods and heroes which formed a great part of the subject matter of public oratory.

This college was known as the Whare-Wananga.[1] Whare is a word for house, and wananga has the meaning both of the higher, sacred knowledge and of the recitation of that learning. The Whare-Wananga admitted only the sons of nobles and a most important aim of its teaching was competency in the highly esteemed art of the public speaker. An old teacher in the House of Sacred Lore who, with two others, dictated to an educated Maori noble the substance of the ancient knowledge, which has thus been preserved to us, admonishes his pupil in these words:[2] "O Son, be strong. You have nearly completed the Celestial things, and then we shall go to the Terrestrial things so that you may quickly gather all these matters. Now, my word to you is: Do not disclose these matters to strangers.

3 4 5

New Zealand staves.

[1] S. P. Smith, The Lore of the Whare-Wananga, Memoirs of the Polynesian Society, III, Part I. New Plymouth, New Zealand, 1913.

[2] Loc. cit., p. 108.

Leave them as a 'strengthening knowledge' for you, your brethren, your children and your grandchildren, to enable you to hold your own in the *marae* of strangers." The marae was an open space in a fortified village, where matters of importance were discussed and ceremonies of various kinds held.

The use of the word wananga in the descriptive title of the Maori college appears to be a specialization of the meaning of a term whose application to this usage is significant of the particular kind of importance attached to the teaching given. The word is found in various Polynesian dialects. Its meaning, as seen in its rather numerous variants, seems originally to have referred to the simple emission of sound. Samoan vagana—the transposition of sounds involved is a not unfamiliar occurrence in Polynesian—means to resound. Easter Island vanaga has for its most general meaning to say or speak. Whether vanagarua, echo (rua = two), is a specialization of this meaning or of the probably more primitive—in its reference to sound in general—Samoan, is not clear, but the latter seems more likely when the great distance between the two localities and the survival in both of a form having a connotation seemingly wider than that reported from any other group are considered. For the present purpose the significant specializations of the meaning to speak are: Easter Island vanaga, to discourse, to address, also an argument, harangue, formula; Samoan vagana, which, besides the meaning already given, has also that of the speech of a tulafale or orator; and Maori wananga, to declaim.[1] In view of the importance of the teaching of rhetoric in the Maori college, the origin of the application of this term to the knowledge imparted there seems plain.

The orator made his official appearance at many other ceremonial gatherings in New Zealand besides the two already mentioned. On the eve of a battle, in the face of the enemy, he found what was perhaps his greatest opportunity. "When the armies met in open field, they were drawn up by their respective leaders in deep columns face to face, accompanied with the hideous war dance. . . . The leaders generally exerted themselves to excite the passions of the army by addresses. The reasons of the conflict are set forth with all the peculiar powers of Maori oratory, and by the most impassioned appeals to the excited feelings of the untutored

[1] William Churchill, Easter Island, s.v. vanaga, p. 268; Elsdon Best, Notes on the Art of War, Journal of the Polynesian Society, XIII (1904), p. 4.

savage. The pride of the tribe, their honour, their wives and their children, the bravery of their ancestors, the spirits of the departed, their own lives now menaced—every fact and circumstance dear to them is invoked, and all the powers of their wild poetry and savage rhetoric employed to influence the passion of war and stimulate bravery."[1] The passage shows to what effective use the lore of the Whare-Wananga was put on such occasions.

An essential part of this ancient lore was the knowledge of incantations calculated to reinforce or make effective the mana or supernatural power inherent in the divine warrior chiefs who were the recipients of Whare-Wananga training. An incantation of this kind is translated by the late S. P. Smith in the article just quoted. It is intended to communicate power to the spear or other weapon:

"Beclouded be the heavens,
Cloud-covered.
'Tis heard down here below,
Rolling is the thunder,
'Tis heard down here below,
Echoing in the expanse.

The quivering spear, to surprise in flight.
Like the double sided shark
Is the fleetness of the footsteps,
Is the raging of the footsteps,
In blood are the footsteps,
Here the footsteps headlong rush.
'Tis the footsteps of Tu!
Stride over the stars!
Stride over the moon!
Flee! Take flight!
Now the death stroke!"

Such an incantation might a warrior recite in a lull of the fighting or as he went to meet a foeman chosen from the opposing ranks. Before the enemy was faced in the open field, manoeuvres were held, ending with the war dance. In this, as in the haka, the fugleman was a noble. "The fugleman . . . springs to his feet and gives the *whiti* cry—Whiti! Whiti! E!—As one man, and with the same wild

[1] S. P. Smith, Wars of the Northern against the Southern Tribes; cited from the "Lectures" of Buddle in the Karere Maori newspaper, 1851. Loc. cit., VIII (1899), p. 159.

cry, the warriors rise for the war dance. . . . The weapons . . . are brandished in the air in tune with the . . . war song. The warriors are transformed for the time into the most demoniac looking beings it is possible to imagine. Every nerve and sinew is strained, the eyes roll wildly, or seem to stand forth from the head, tongues loll out to an incredible extent, [weapons] are brandished wildly but uniformly, and in perfect time the apparently frenzied warriors stamp with their bare feet on the ground until the earth trembles. They jump from the earth and descend with both feet flat on the ground, also in perfect time. But high above all else may be heard the thundering roar of the war song. Given five hundred natives performing the war dance, and long miles away, the hoarse chorus . . will be heard like the boom of the ocean surf on a distant coast."[1]

The war dance, as performed on these occasions, became auspicious of the success or failure of an expedition. "Should any man not keep time with the others, or not leap so high, these . . . were . . . evil omens. When called on to arise by the leader, should the warriors rise in perfect time, all together, that is . . . a good omen. But, if some are slow to rise, and lag behind, that is . . . an evil omen for the expedition. In the case of the omens during the war dance being unpropitious, [they] would go through the whole performance again the next day . . . to obtain better omens. If no error was made by the performers . . . the party would proceed to the wars."[2]

As leadership in war and in the ceremonies of preparation for it was the business of noblemen, so they led also in the reestablishment of peace and the rites which belonged to peacemaking. Here the orator had his formulae established by custom, though there was choice among a number, and variation within limits according to the necessities of the situation. "A party of fifty or one hundred men would visit an enemy's country in order to make peace, and would be received with every evidence of fierce hostility, after the manner of the Maori. Then many speeches are made, threats are hurled at the visitors. After a while these actions and words of defiance calm down, and the two sides will probably hold a *tangi* and lament those who have been slain. Then a chief will arise and welcome the visitors: 'Welcome! welcome in the light of day. Welcome, my brothers! Here let us turn to the peaceful ways of

[1] Elsdon Best, loc. cit., XII (1903), p. 77.
[2] P. 78.

our ancestors. Let us walk in the light, beneath the shining sun of this day. . . . ' Then the *kawa* [formulae] for peace making are recited. . . .

"Then one of the visiting chiefs rises: . . . 'Let your weapons be turned in other directions. My brothers! The sun shines once more . . . '

"Another chief rises: 'Welcome! welcome in the light of day . . . '

"A chief of the . . . people of the place rises: 'Welcome! My brothers, let us respect the good counsel of our ancestors. We enter the light . . . '

"Then the final *karakia* [incantation] is repeated."

A curious piece of symbolism, vaguely reminiscent of the closing of the temple of Janus, was involved in the use of the expression "to erect a door of jade" at peacemaking ceremonies. The chief who was in charge of the negotiations, would, after his party had been formally welcomed, rise and say: "Welcome us. Here we come. Our *tatau pounamu* [door of jade] is such and such a mountain"—naming usually a neighbouring peak, but also sometimes some other natural feature. Greenstone to the Maori was what gold is to us. A door made of this precious material was of course out of the question. It was as if a municipal council, having imagination, but no funds, should propose the erection of a great Memorial, and by way of fulfilling the expectations of its constituents, rechristen Main Street Centennial Avenue. So, we learn, "when Tuhoe and the tribes of Waikare-moana and the coast tired of their long and bloody war, they resolved to make peace. Hipara said: 'I will give my daughter Hine-ki-runga in [sic] wife to Tuhoe, as an ending of the war.' Nga-rangi-mataeo said: 'Let us have a *tatau-pounamu*, that peace may never be broken.' Then the hill Kuha-tarewa was set up as a wife, and the hill Tuhi-o-Kahu as a husband. By the union of these two hills the *tatau-pounamu* was raised and war ceased. . . ."[1] This particular instance is a rather typical example of the substitution of symbol for act, in the conviction that the one, in its proper ritual setting, will be as effective as the other, which is characteristic of this side of their life. There is also a curious mixture of metaphors embodied in this special case of *tatau-pounamu*, which too is often an accompaniment of highly developed symbolisms of this kind.

[1] Pp. 198–201.

Another most important occasion for the exercise of the high born orator's function was at the birth of the eldest son of a family of the highest rank, who would succeed his father as an ariki, or

6 7 8 9

Heads of hani or taiaha. No. 6 shows some of the details in the carving of No. 4, including the face which is halved by the edge of the blade.

divine priest chief. Here especially the formulae, which were of the nature of incantations, must be correctly reproduced by the leading speaker, who must be a relative of the father or mother to officiate at the first ceremony, that of the greeting of the child. On this

occasion again the dramatic accompaniment of grimaces and violent movement was essential to the oration, which the speaker concluded with "an exhibition of his agility and powers of facial distortion . . .

10 11 12 13 14

Details of the carving of hani, including (No. 12) that figured at full length as No. 5.

in which he pranced about, going through most amazing contortions, with glaring eyes and out-thrust tongue."[1]

[1] Elsdon Best, Ceremonial Performances pertaining to Birth . . ., Journal of the Anthropological Institute of Great Britain and Ireland, XLIV (1914), p. 142.

The almost invariable, if not essential, mark of the orator on the occasions described was the carrying of the weapon known as hani or taiaha. This was the favourite and traditional weapon of the Maori nobleman: in the legendary accounts of the slaying of various dragons, when the monsters were laid open, not only the bodies of noble victims were found but also their taiahas which had been swallowed together with whole armouries of other weapons.[1]

Some of the smaller and lighter examples, such as Fig. 3, had lost, with their size and weight, their practical usefulness and become merely marks of office or rank. This was also apparently the case with the examples made of whale's bone and also, in the opinion of a recent writer,[2] with those the blades of which were fully carved (Fig. 4). The former, at least, were in use before the Maori had come into contact with Europeans, as they are mentioned by Banks in the Journal which Hawkesworth used in preparing his account of Cook's first voyage. "The chiefs when they came to attack us carried in their hands a kind of ensign of distinction in the same manner as ours do spontoons: these were either the rib of a whale as white as snow, carved very much and ornamented with dogs' hair and feathers, or a stick about six feet long, carved and ornamented in the same manner, and generally inlaid with shell like mother of pearl."[3]

Mr. Skinner thinks that the carving of the whole blade of the hani is an innovation and says that he has never seen an old example so carved. Such decoration, he justly remarks, "if executed on the grip, would impair the fighting value of the weapon." Its application to the rest of the blade might also make it difficult to pass swiftly from guard to thrust when the blade was in contact with that of another weapon. But there is no reason why a fully carved hani should not have been used for the ceremonial purposes to which many of these staves were confined, except for the war dance, in which, indeed, the leader had his choice of weapons and was not restricted to the use of the hani. The expressions used by Bankins the passage quoted seem to imply that some of the wooden hani which he saw as well as those of whale's bone were fully carved;

[1] A. Hamilton, The Art Workmanship of the Maori Race in New Zealand, Dunedin, N. Z., 1896. Pp. 175, 176.

[2] H. D. Skinner, Origin and Relationship of Hani, Tewha-Tewha, and Pou-Whenua, Man, 1916, No. 97. See also The Two Handed Clubs of the Maoris, Journal of the Anthropological Institute, Vol. XXI (N. S.), 1918.

[3] The Journal of Sir Joseph Banks, edited by Hooker, London, 1896. P. 246.

"carved very much" is not satisfactorily applicable to the decoration merely of the head of the weapon, although this is in fact the only part of the hani which is commonly so treated.

One of the specimens, Fig. 9, is ornamented just behind the head with red feathers and cord to which a tuft of dog's hair is attached. These are applied to a foundation of cloth, and in perfect specimens of this form of ornament the tufts of hair form a continuous fringe below the band of feathers. Taiahas thus adorned had a special name, taiaha kura,[1] and were very highly prized.

The value set upon these weapons is characteristically shown by their employment as gifts at the third and final ceremony in which the birth of an ariki was celebrated. We are expressly told that they were valued for this purpose because of their customary use in ceremonies. Indeed the mana of the prince was, in Maori belief, undoubtedly communicated to the hani in a special degree, above that in which it flowed into everything he touched. All of an ariki's personal property was, of course, taboo, and special taboos were attached to weapons; but it is of the hani that we hear as peculiarly prodigious, pregnant with portents and marvels. Famous taiahas, like the favourite swords of mediaeval heroes, were specially named. Matuakore, a taiaha once the property of a Maori hero, was regarded as in some sort a god. It gave omens: if the feathers of its ornamental band shone brightly, this was a sign of life and prosperity for the tribe; if the red of the feathers was pale, this betokened misfortune or death. A taiaha of this class in the hands of those who knew the proper formulae could foretell the result of a battle. Placed upon the ground in front of a war party, the taiaha would turn itself over before the eyes of the assembly, prognosticating ruin to the enemy.[2]

Our knowledge of the ancient customs of the people of Easter Island or Rapa Nui is scanty. Apparently there was a king of the whole island, which is only about fifty square miles in area, and the inhabitants were organized into clans under the leadership of chiefs, whose position was hereditary like that of the king. The exact nature of the connection of the sword staves (Figs. 1 and 2) with the class of chiefs is not easy to determine, but it seems fairly certain that they were insignia of the same kind as the hani of the Maori

[1] Journal of the Polynesian Society, XXIII (1914), p. 222.

[2] Loc. cit. XI (1902), pp. 68, 245; XIII (1904), p. 74; XIV (1905), pp. 55, 219; Tregear, The Maori Race, p. 318; Hamilton, pp. 183, 184.

and had a similar relation to practices of which oratory was a formal accompaniment. It has been definitely stated that the ua were not weapons of war,[1] but merely marks of authority. Yet they are so closely allied in form and in the chief feature of their carved ornament to the Maori hani, that it seems certain they must originally have been used in the same manner by a people whom various other considerations show to have been closely connected with the New Zealanders.

The explicit statement quoted from Paymaster Thompson as to the purely ceremonious use of the ua is supported by other writers, in the sense that they mention only its employment as an official baton and exclude it from the list of weapons. Thus Meinecke[2] refers to it as "the outward mark of the chief's office," and specifies clubs of two kinds, neither of which resembled the ua—except in the ornamental carving of the heads of those of one kind—besides spears and stones, as their fighting implements. J. O. Palmer[3] "saw no large war clubs." He describes the ua as a chief's "baton of office."

Although no information known to me enables us with certainty to assign to these staves an employment which can be called ceremonial rather than ceremonious, yet one statement connects them directly with oratory, in a manner which to some extent justifies our regarding them as having a sacred and inferentially a ceremonial character. This statement has been communicated to me by Dr. Ralph Linton of the Field Museum at Chicago, in the form of a note written by Mr. J. L. Young of Papeete, whom Dr. Linton regards as a trustworthy witness. In estimating the probability of the conclusions that may be drawn from the part of this statement which refers to the ancestry of the ua bearers, the assertion of Thompson that "the handle [of the ua] was supposed to represent [sic] the effigy of the owner" has to be considered. In view of the nature of the acquaintance of the respective informants with the islanders and of what is known concerning the character of similar effigies in Polynesia, Mr. Young's statement seems to have the greater probability. It is in part as follows:

"Ua: Staves or batons of hard wood having carved female faces on both sides of the upper end, used at tribal gatherings or

[1] W. J. Thompson, Te Pito te Henua, or Easter Island, Report of the U. S. National Museum for the year ending June 30, 1889, pp. 475, 535.

[2] Die Inseln des stillen Oceans, quoted by W. Churchill, Easter Island, p. 336.

[3] Visit to Easter Island in 1868, Journal of the Royal Geographical Society, XL (1870), p. 172.

councils by the representatives of certain families. The holder of such a staff was entitled to speak in the name of the family to which that particular staff belonged. The faces are supposed to represent the lineaments of the ancestors of the family through whom the title to the occupancy of the family lands originated."

Assuming the correctness of this information and taking into consideration the sacred character attaching to Polynesian genealogy and to persons who had record of their ancestry in the manner implied, it would seem that these "representatives of certain families" were identical with the "old men"[1] and chiefs[2] who have hitherto been referrred to as the owners of the ua, and thus, if not the actual chiefs of the ten clans into which the population was divided, that they were at any rate persons of the same aristocratic class as that to which elsewhere in Polynesia chiefs of known and hence of divine lineage belonged.

It is thus probable that the ua had a connection with oratory similar to that of the Maori hani and also a similar connection with a class corresponding to that which in New Zealand monopolized that function of the public man. The analogy with privileged speakers elsewhere, as in both New Zealand and Samoa, points to the probability that these Easter Island heads of families, or chiefs, were also the orators to whom Thompson refers when he says: "Prominent among the ancient customs were feasts to celebrate the return of the different seasons and various anniversaries in their history, such as the landing of Hotu-Metua at Anakena Bay. Upon the latter occasion the ancient traditions were repeated by recognized orators."[3] Hotu-metua was the first in the traditionary line of kings of Easter Island.

Another possibility with regard to the status of the ua bearer is suggested by the first passage in Thompson's paper in which these staves are mentioned. It is stated there that the ua "was carried as a baton before the chiefs."[4] This statement, however, is not, as far as I know, supported by any other writer, and does not occur in Thompson's own formal definition of an ua (p. 535), in which they are said to have been used as "batons of office by the chiefs." Although the first statement seems a considered one, it may be suggested, in view of the lack of supporting evidence, that it was not

[1] J. P. Harrison in Journal of the Anthropological Institute, III (1873–74), p. 374.

[2] Meinecke in Churchill, p. 336; Thompson, p. 535; Palmer, p. 172.

[3] Te Pito te Henua, p. 468.

[4] Loc. cit., p. 475.

the result of independent inquiry, but perhaps due to a misreading of Meinecke's assertion[1] that "the outward sign of a chief's office is the carrying of a long stick, etc.," as if there were an implication that the carrying and the ownership of the ua were to be attributed to different persons. Probably no great weight is in any case to be attributed to this isolated statement. If it were supported it might imply a situation more analogous to that which obtained in Samoa than to the Maori state of affairs with regard to the orator. In Samoa a chief had his tulafale or official orator, who was drawn from a class below his own, which, although extremely influential, to the point, indeed, of being able to depose a chief, did not share in the sacredness of the chiefly office.

The resemblance between the Maori hani and the Easter Island ua is obvious. In typical examples of both ua and hani the eyes are inlaid; in the former case with bone and obsidian, in the latter, with shell. Both weapons consist essentially of a long blade flaring towards one extremity and passing towards the other into a grip the limit of which is marked by carving in relief representing human heads facing in opposite directions. The important difference between them consists in the presence in the Maori sword staff of a pointed portion extending beyond the carved heads which in the Easter Island examples are turned the other way and correspond to the pommel of our swords. This portion is not merely ornamental, though it is made to represent a protruded tongue, but has an important function in the employment of the hani as a weapon. In combat the hani was grasped with both hands in front of the carving, the point or tongue being held downwards, and the blow was given with either edge of the blade. If the opponent broke through the guard and thus got too close for effective use of the blade against him, the weapon was reversed and the tongue end brought into play for thrusting.

In an article published six years ago in the Journal of the Royal Anthropological Institute,[2] Mr. Skinner has put forward various considerations which point to the derivation of the hani and other similar two-handed clubs of the Maori from Melanesian forms. In an Appendix he draws attention to the evidently close alliance in

[1] Easter Island, p. 336.

[2] The Two-handed Clubs of the Maori. Vol. XXI (N. S.), pp. 198–213. See also R. Linton, The Material Culture of the Marquesas Islands, Memoirs of the Bernice Panahi Bishop Museum, Vol. VIII, p. 396.

form and function between the hani and the ua. The latter he considers "a coordinate or derivative" of the former. If a derivative, it would be difficult to account for the absence of even a vestigial

Heads of the ua, Nos. 1 and 2.

tongue or point from the Easter Island staff; it is more likely that it is a development, coordinate in other respects with the hani, from a Melanesian form of club lacking the point.

The essential form of the strongly stylized face from which the tongue of the hani protrudes is the same in all the examples figured here and in a previous number of the JOURNAL, Vol. II, p. 35. The pure elements of this form may be seen in the unfinished example, Fig. 10. This peculiar conventional mode of dealing with the human face in Maori woodcarvings, with its probable significance and its relation to the tattoo of the warrior was considered in an article in the JOURNAL for December, 1920. The exaggerated form in which the tongue appears in the case of these weapons is obviously explicable from the manner in which the hani was used in fighting.

The three examples with carved blades show each a different fashion in decoration, all the elements of which—straight line, punctuate line, interrupted arcs, scrolls, and spirals—may be matched in other authentic examples of Maori woodcarving, though the scroll or arabesque and spiral usually predominate. The irregular treatment of the scroll work on the tongue of Fig. 8 and its association with equally irregular rectilinear ornament on the face is unusual, but this large hani—eighty three inches in length and a most formidable weapon—is an undoubtedly genuine example of considerable age, showing more wear in its carved portion than any other of several old weapons in the collection. Five of the examples figured have or formerly had the eyes of the human faces inlaid with shell. This includes the faces—one so placed that a side appears on each face of the blade near the edge—inserted at two points in the otherwise purely conventional carving of the blade of Fig. 4.

The triangular grouping of scrolls, or some modification of that arrangement, is a conspicuous feature of the carving on the blade of Fig 4. The association of this pattern with the lower part of the weapon seems appropriate in view of the common use of the same design in the tattooing of the leg.[1] But it was not confined to that use; it is the principal motif of a moko or face tattoo figured by General Robley after drawings made during Cook's first voyage,[2] and it frequently occurs in that part of a moko occupying the space between and above the curves which repeat and accentuate the line of the eyebrows.[3] In the latter case the design is usually incomplete, a part of it being lost in the hair.

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[1] Robley, Moko or Maori Tattooing, Figs. 13, 16, 17, 18; Hamilton, Maori Art, p. 313.
[2] Robley, pp. 5–8.
[3] Robley, Figs. 15, 55, 155, 165; Hamilton, Plate XX, Plate XVIII.

In Folk-Lore for December, 1917, Mr. Henry Balfour relates the famous colossal stone statues of Easter Island, as to the manner in which the heads are sculptured, with what he regards as a Melanesian (Solomon Islands) prototype. One of the features on which he relies for the establishment of an analogy is the form of the nose in the stone heads, which, as he points out, is different from that of the small wooden Easter Island images. The prominent aquiline noses of the latter differ as much from the corresponding feature of the heads of the ua, which are low bridged and long like those of the large stone images.

A remarkable feature, both of the ua and of the small full length wooden figures of Easter Island, several examples of which may be seen in the MUSEUM, is the prominence given to the cheek bones in the representation of the human face. Perhaps it is not inapposite, in connection with the subject of Melanesian affinities, for which the evidence is so strong in both Easter Island and New Zealand, to point to the sculptural exaggeration of the same feature, not in the Solomon Islands, it is true, but in another Melanesian locality, New Caledonia, where it finds marked expression in the large human heads carved on the doorway slabs of which there are two fine examples here.

ANNUAL REPORT OF THE DIRECTOR

At the Annual Meeting of the Members of the University Museum held on December 19th the Director read the following report.

During the year the Board of Managers was strengthened by the election of Mr. Wharton Sinkler to membership on the Board. Mr. H. U. Hall was appointed Acting Curator of the American Section owing to the continued absence of Dr. Farabee and Mr. Irwin L. Gordon was appointed Publicity Director.

It is with great regret that I have to report that Dr. Wm. C. Farabee, Curator of the American Section, has been too ill during the year to return to his duties in the Museum. This illness has persisted since his return from South America, where he underwent unusual hardship and sickness which only his strong constitution enabled him to survive. The last expedition, from which Dr. Farabee returned in 1923, was a fruitful one in collections obtained. The textiles and the metal work are especially fine. These collections now in the Museum will form a part of the new exhibits resulting from the rearrangement consequent upon the installation of the new wing of the building. At present the reports that come to us about Dr. Farabee are more favourable than they have been during the past year and hopes are entertained for his complete recovery in the near future.

Building.

During the year the third section of the building begun on January 17, 1923, was finished and is now ready to be accepted from the contractors. The architects have received instructions to proceed with the preparation of plans for a fourth section which is already in urgent demand owing to the accumulation of material in the storage rooms, chiefly from the various expeditions that are at work in different countries.

Field Work.

There has been some relaxation in the activities of our expeditions. The expedition at Ur of the Chaldees in Mesopotamia is the only one that worked in the East during the year. Last season's campaign at Ur was brought to an end in April and the expedition

returned to work on the first of November and is now engaged in making extended excavations in the neighbourhood of the ziggurat. Mr. Woolley remains in charge and has been joined by Dr. Leon Legrain, Curator of the Babylonian Section of this Museum, as second in command.

From Mr. Shotridge, who has continued his work in Alaska during the year, a number of consignments have been received of objects collected by him along the coast of Southeastern Alaska in the old Indian villages where many antiquities are still preserved.

From Egypt we have received 142 cases of antiquities representing the accumulation of nine years' excavation at the ruins of Memphis.

From Beisan in Palestine 21 cases have been received representing one year's excavation, the results of the first year's work having been received previously.

The Egyptian and Palestine collections are now being prepared for installation in the new wing of the building and the installation is actually in progress under the direction of Dr. Fisher who has been engaged upon this task since his return from Egypt in November, 1923. On Washington's Birthday the University conferred on Dr. Fisher the degree of Doctor of Science in consideration of his excavations in Egypt and Palestine on behalf of the Museum.

Publications.

I refer with special pleasure to the publications of the year. Besides the four numbers of the Journal, two scientific volumes have been seen through the press. One is by Dr. Clarence S. Fisher and deals exhaustively with the excavations conducted by the Museum in 1915 at Giza beside the Pyramids. The other volume is a work by Dr. Farabee and deals with his explorations in 1915 and 1916 in Southern British Guiana. A volume by Dr. Legrain, dealing with the artistic objects and inscriptions in the Babylonian collections in the Museum, is in press and other volumes are in preparation by Dr. Nathaniel Reich, the assistant in Demotic in the Egyptian Section of the Museum. It has been proposed that these volumes shall deal with the Demotic papyri discovered by the Museum's expedition at Thebes in 1918 and that they will contain complete translations and a commentary on these papyri which are mostly in the nature of contracts.

Educational Work.

Among the various Departments of the University of Pennsylvania using the collections in the Museum in connection with their work of instruction, the Department of Architecture has availed itself most extensively of the facilities afforded for sketching, drawing, colour work and design.

Classes from technical schools and other educational bodies in and near Philadelphia have made extensive use of the collections, a use which has increased year by year. The number of pupils and teachers from these technical schools, especially the schools of decorative art and of design is not recorded, but it is safe to say that several thousand have used the collections during the year. This use consists in the copying of designs on textiles, tilework, pottery and statuary. Colour work forms a large part of these lessons and exercises. The classes of Bryn Mawr College studying ancient history and archaeology have made use of the collections and other institutions giving similar instruction are becoming more and more acquainted with the opportunities and facilities offered by the University Museum in these branches of educational work.

An equally significant development of the Museum's function in the community is the increasing recourse of industrial establishments to the exhibits for ideas and designs to be applied to their products. Manufacturers of jewellery, lace, dress fabrics, tiles, garden pottery, rugs, costumes and furniture have found in the Museum the models of which they stand in need. The effects of this use of the Museum collection in connection with the industrial arts and manufactures may be seen in many products and in many points of contact with the life of the community and of the country. In this respect the year's activities at the Museum have shown a marked increase, as have the other educational developments already referred to in the preceding paragraph.

With regard to the further educational work we have continued our coöperation with the schools of the City, which, as heretofore, have been invited to the Museum both for lectures in the Auditorium and for inspection of the collections under proper guidance. Miss Fernald has remained in charge of this work and is ably assisted by Mrs. Cornelia Dam and Miss Helen McKelvey and also by Mr. Don Whistler who was appointed in the autumn and whose Indian connections give him special qualifications for this educational work on behalf of the school children. The following figures will serve to

indicate the extent of our educational work in the schools of the City. For the elementary grades 39 lectures were given to 19,840 children; in the high schools 19 lectures were given to 1446 children. One hundred and twenty talks were given for classes from the schools in the galleries and were attended by 2834 pupils.

Story Hour.

The Story Hour for children of members on Saturday morning at 11 o'clock has proved a specially interesting feature of the educational work, although it could be wished that a larger number of children of members would take advantage of these very delightful and instructive hours. Twenty four talks were given in this series to 699 children.

Purchases and Gifts.

By far the most important of the activities of the Museum during the year has been the purchase of a number of collections and works of art. In all 811 objects have been bought. These include one splendid Greek marble head of Ariadne, bought through the generosity of Mr. Eldridge R. Johnson; 18 Egyptian works of art of the highest importance; 22 ancient Chinese works of art, also of the greatest importance; 7 sculptures from India; 3 specimens of fine Persian and one specimen of Arabic workmanship; a rare Mexican sculpture and 753 ethnological objects.

In addition to these purchases, gifts have been received from Mrs. Thomas de Witt Cuyler, Mr. Arthur L. Church, Mrs. Edward Bok, Mr. Walter C. Wyman, Mr. Morris Wood, Mrs. Logan MacCoy, Dr. Judson Daland, Mr. K. W. Yung, Miss Elizabeth Dunbar and Mrs. Charles Platt, Jr.

Library.

In the Museum Library we have continued to add selected works of special and permanent value dealing with the subjects in which the Museum is interested, chiefly archaeological works and works on the history of the arts. Funds for purchasing are limited to a $2,000 appropriation made through the President from the George Leib Harrison Foundation. By this means 198 volumes have been added during the year. Apart from this, however, the Museum subscribed for a certain number of periodicals and received others by

exchange. Through this means we have received during the year 150 volumes, 920 periodicals and 125 pamphlets. The number of books now in the Library is 12,084.

Visitors and Membership.

The number of visitors to the Museum during the year was 104,661.

The membership has been increased by 1 life member, 1 contributing, 4 sustaining and 86 annual members.

REPORT OF THE TREASURER

For Year Ended June 30, 1924

PERMANENT ENDOWMENT INVESTED IN PLANT AND EQUIPMENT

University Museum General Fund $2,817,163.55

PERMANENT ENDOWMENT TO BE INVESTED IN PLANT AND EQUIPMENT

	PRINCIPAL ACCOUNT			INCOME ACCOUNT	
TITLE OF FUND	PRINCIPAL OF FUND	INVESTMENT OF PRINCIPAL	UNINVESTED PRINCIPAL BALANCE JUNE 30, 1924	INCOME	EXPENSE
University Museum Building and Endowment Fund, Third Section.....	$421,075.80	$418,801.49	$2,274.31	$11,001.29	$11,001.29†

† Income transferred to principal.

PERMANENT PRODUCTIVE ENDOWMENT FUNDS

TITLE OF FUND	PRINCIPAL ACCOUNT			INCOME ACCOUNT	
	PRINCIPAL OF FUND	INVESTMENT OF PRINCIPAL	UNINVESTED PRINCIPAL BALANCE JUNE 30, 1924	INCOME	EXPENSE
(*a*) Avery, Samuel P., Fund	$8,600.00	$8,600.00	.....	$493.85	$493.85
(*b*) Avery, Samuel P., Investment of Income Fund	200.00	203.10	$3.10*	12.00	12.00
(*a*) Coxe, The Eckley B., Jr., Museum Endowment Fund	500,642.93	500,642.93	.....	24,685.05	24,685.05
(*b*) Coxe, The Eckley B., Jr., Museum Endowment Investment of Income Fund	12,904.63	12,878.05	26.58	1,471.10	1,471.10
(*a*) Drexel, Lucy Wharton, Medal Fund	2,046.96	2,046.96	.....	99.75	99.75
(*b*) Drexel, Lucy Wharton, Medal Investment of Income Fund	1,000.00	998.34	1.66	58.80	58.80
(*a*) Drexel, Lucy Wharton, Museum Cast Fund	20,217.74	20,217.74	.....	985.20	985.20
(*b*) Drexel, Lucy Wharton, Museum Cast Investment of Income Fund	6,479.83	6,468.59	11.24	373.40	373.40
Duhring, Louis A., Museum Fund	184,053.25	184,047.17	6.08	10,726.11	10,726.11
(*a*) Edelheim, Carl, Excavation Fund	1,026.01	964.05	61.96	49.01	49.01
(*b*) Edelheim, Carl, Excavation Investment of Income Fund	200.00	192.94	7.06	11.40	11.40
(*a*) Hering, Walter E., Fund	15,000.00	15,000.00	.....	750.00	750.00
(*b*) Hering, Walter E., Investment of Income Fund	600.00	599.13	.87	35.40	35.40
Johnson, Mrs. Emory R., Fund	28,250.00	28,250.00	.....	1,494.51	1,494.51
Macauley, Francis C., Archæological Fund	5,054.48	5,054.48	.....	246.31	246.31
Pepper, William, Hall Endowment Fund	54,506.09	54,502.25	3.84	2,428.20	2,428.20†
Sommerville, Maxwell, Collection Fund	22,337.47	22,337.47	.....	1,088.49	1,088.49
Special Exploration Fund	7,514.23	7,352.44	161.79	406.46	406.46†
University Museum Endowment Fund	31,847.61	31,847.61	.....	1,848.78	1,848.78
University Museum General Fund	19,176.71	19,147.90	28.81	934.47	934.47
University Museum Expedition and Collection Fund	39,877.85	19,861.32	20,016.53	984.37	984.37
Total	$961,535.79	$941,212.47	$20,323.32	$49,182.66	$49,182.66

* Over-investment.
† Includes income transferred to principal.

SUMMARY OF CASH ACCOUNT

Receipts

Balance, July 1, 1923			$37,508.80
Membership Dues:			
Annual Members	$6,810.00		
Sustaining Members	1,775.00		
Contributing Members	3,300.00		
Life Member	500.00		
		$12,385.00	
Benefactions		162,233.57	
Income from Invested Funds:			
Avery, Samuel P., Fund	$505.85		
Beisan Expedition Fund	22.50		
Coxe, Eckley B., Jr., Museum Endowment Fund	26,156.15		
Drexel, Lucy Wharton, Medal Fund	158.55		
Drexel, Lucy Wharton, Museum Cast Fund	1,358.60		
Duhring, Louis A., Museum Endowment Fund	10,658.67		
Edelheim, Carl, Excavation Fund	52.85		
Expedition and Collection Fund	1,967.47		
Hering, Walter E., Fund	785.40		
Johnson, Mrs. Emory R., Fund	261.12		
Macauley, Francis C., Archæological Fund	246.31		
Pepper, William, Hall Endowment Fund	2,171.25		
Sommerville, Maxwell, Collection Fund	1,088.49		
University Museum Endowment Fund	1,844.78		
University Museum General Fund	934.47		
		48,212.46	
Interest on Bank Balances		981.79	
Sales of Prints and Publications		1,413.20	
Investments Matured or Sold		58,819.13	
Transferred to Maintenance Fund from:			
Coxe, Eckley B., Jr., Museum Endowment Fund	$7,330.66		
Clark Research Professorship of Assyriology Fund	3,500.00		
		10,830.66	
Transferred to Expedition and Collection Fund from:			
Duhring, Louis A., Museum Endowment Fund		625.00	
Transferred to Mesopotamian Expedition Fund from:			
Expedition and Collection Fund		1,151.25	
Transferred to Beisan Expedition Fund from:			
Coxe, Eckley B., Jr., Museum Endowment Fund		1,530.15	
From the Trustees of the University of Pennsylvania for Maintenance		50,000.00	
Special Appropriation from Income of the George L. Harrison Foundation		1,000.00	
Special Appropriation from Income of the Clark Research Professorship of Assyriology Fund		3,500.00	
			352,682.21
Total Receipts			$390,191.01

Expenditures

Maintenance Fund:			
Salaries	$65,301.23		
Supplies and Expenses	15,846.05		
Insurance	270.93		
Lectures	2,132.18		
Equipment	516.36		
Periodicals	170.59		
Binding	45.00		
Printing Publications	12,094.38		
		$96,376.72	
Expedition and Collection Fund		106,919.00	
Beisan Expedition Fund		5,619.05	
Mesopotamian Expedition Fund		17,037.27	
Egyptian Expedition Fund		10,786.37	
Coxe, Eckley B., Jr., Museum Endowment Fund		15,630.35	
Hering, Walter E., Fund		300.00	
Avery, Samuel P., Fund		1,026.00	
Drexel, Lucy Wharton, Museum Cast Fund		34.21	
Book Fund		1,305.98	
Transferred to the Treasurer of the University of Pennsylvania:			
Expedition and Collection Fund	$56,000.00		
University Museum Building and Endowment Fund, Third Section	31,500.00		
University Museum Endowment Fund	500.00		
		88,000.00	
Transferred from the Eckley B. Coxe, Jr., Museum Endowment Fund to:			
Maintenance Fund	$7,330.66		
Beisan Expedition Fund	1,530.15		
		8,860.81	
Transferred from the Clark Research Professorship of Assyriology Fund to:			
Maintenance Fund		3,500.00	
Transferred from the Louis A. Duhring Museum Endowment Fund to:			
Expedition and Collection Fund		625.00	
Transferred from the Expedition and Collection Fund to:			
Mesopotamian Expedition Fund		1,151.25	
			$357,172.01
Balances, June 30, 1924:			
Avery, Samuel P., Fund		$298.16	
Beisan Expedition Fund		3,902.58	
Book Fund		126.49	
Coxe, Eckley B., Jr., Museum Endowment Fund		2,764.45	
Drexel, Lucy Wharton, Medal Fund		654.47	
Drexel, Lucy Wharton, Museum Cast Fund		2,897.34	
Edelheim, Carl, Excavation Fund		207.00	
Exhibition Cases		2,500.00	
Expedition and Collection Fund		12,389.44	
Hering, Walter E., Fund		3,089.80	
Macauley, Francis C., Archæological Fund		884.68	
Maintenance Fund		1,102.55	
Mesopotamian Expedition Fund		1,702.04	
University Museum Building and Endowment Fund, Third Section		500.00	
			33,019.00
Total Expenditures			$390,191.01

BENEFACTIONS TO THE UNIVERSITY MUSEUM

The Expedition and Collection Fund

DONOR	AMOUNT
Allen, Mrs. William L	$100.00
Anonymous	500.00
Berwind, Henry A	1,000.00
Bloch, Arthur	250.00
Bloch, Bernard	500.00
Brengle, Henry G	500.00
Bromley, John E	500.00
Burnham, George, Jr	1,000.00
Cadwalader, John	1,000.00
Cassatt, Robert K	1,000.00
Castner, Samuel, Jr	500.00
Clark, Clarence M	2,000.00
Clark, Edward Walter	1,000.00
Clark, Joseph S	500.00
Cohen, Charles J	100.00
Collins, Henry H	500.00
Curtis, Cyrus H. K	1,000.00
Dannenbaum, Morris	100.00
Disston, Jacob S	2,000.00
Drueding, Casper	250.00
Elliott, Mrs. William J	100.00
Ford, James B	11,873.52
Frazier, George H	1,000.00
Garrett, Mrs. Walter S	1,000.00
Gates, Thomas S	2,000.00
Gest, William P	500.00
Grundy, Joseph R	250.00
Harrison, Alfred C	1,000.00
Harrison, Charles C	5,000.00
Hering, Walter E	1,000.00
Hunter, T. Comly	500.00
Jenkins, Charles Francis	250.00
Johnson, Eldridge R	10,000.00
Jones, Arthur W	350.00
Kerr, William M	1,000.00
Kohn, Irving	250.00
Law, William A	500.00
Lippincott, J. Bertram	500.00
Lit Brothers	500.00
Lloyd, Horatio G	1,000.00
Madeira, Louis C	1,000.00
McCahan, W. J., Jr	1,000.00
McFadden, George	1,000.00
McFadden, George H	1,000.00
McLean, William L	1,000.00
McMichael, C. Emory	250.00
McMichael, Mrs. Ellen Harrison	250.00
McOwen, Frederick	500.00
Montgomery, William W., Jr	500.00
Newbold, John S	500.00
Page, Louis R	2,000.00
Philadelphia, City of	22,500.00
Potts, William M	$1,000.00
Roberts, Owen J	500.00
Smith, W. Hinckle	1,000.00
Snellenburg, Morton E	600.00
Stewart, Dr. Thomas S	250.00
Strawbridge and Clothier	1,000.00
Vauclain, Samuel M	1,000.00
Ward, Henry G	900.05
Warden, Clarence A	500.00
Wentz, D. B	2,500.00
Windrim, John T	1,000.00
Wing, Asa S	100.00
Wood, Biddle	1,000.00
Wood, Clement B	1,000.00
Woodward, Mrs. George	500.00
Wyatt, Mrs. Walter S	1,000.00
	$98,223.57

The Mesopotamian Expedition Fund

Anonymous	$125.00
Elkins, William M	1,000.00
Johnson, Eldridge R	10,000.00
Moore, Henry D	500.00
Sharpe, Miss Mary A	1,000.00
Sharpe, Miss Sallie	1,000.00
Wood, Walter	1,000.00
	$14,625.00

The Beisan Expedition Fund

Henry, Mrs. Charles W	$4,000.00
Johnson, Alba B	250.00
Paul, J. Rodman	125.00
Wood, Miss Juliana	500.00
	$4,875.00

General Purposes

Bloch, Arthur	$250.00
Lea, Miss Nina	1,000.00
McFadden, Barclay	10.00
Philadelphia, City of	8,750.00
	$10,010.00

Exhibition Cases

Henry, T. Charlton	$2,500.00

The Building Fund, Third Section

Belfield, T. Broom	$4,000.00
Bonnell, Henry H	2,500.00
Colton, S. W., Jr	10,000.00
Fuguet, Howard	1,000.00

DONOR	AMOUNT	DONOR	AMOUNT
Henry, Mrs. Charles W	$4,000.00	Riley, Lewis A	$250.00
Henry, T. Charlton	2,500.00	Schmidt, Edward A	500.00
Hering, Walter E	1,000.00	Wanamaker, John, Estate of	5,000.00
Lewis, Henry	250.00		$32,000.00
Peterson, Arthur	1,000.00		
TOTAL BENEFACTIONS			$162,233.57

F. Corlies Morgan,
Treasurer.

Jane M. McHugh,
Assistant Treasurer.

THE UNIVERSITY MUSEUM FUNDS

AVERY, SAMUEL P., FUND. Founded February 20, 1918. The gift of Samuel P. Avery. The income is to be used for purchasing works of art for the University Museum.

COXE, THE ECKLEY B., JR., MUSEUM ENDOWMENT FUND. Founded October 19, 1917. A bequest under the will of Eckley B. Coxe, Jr., deceased. The income is to be used for the Egyptian Section of the University Museum, and "after meeting the needs of that section to aid in explorations and in defraying the expense of transportation of the collections and also for defraying the expenses of the publications of the said Museum."

DREXEL, LUCY WHARTON, MEDAL FUND. Founded November 21, 1902. The gift of Mrs. Lucy Wharton Drexel. The income is to be used for the purchase of medals to be awarded for archæological excavations, or for the best publications based on archæological excavations by an English-speaking scholar.

DREXEL, LUCY WHARTON, MUSEUM CAST FUND. Founded February 8, 1913. A bequest under the will of Lucy Wharton Drexel, deceased. This fund is to be used for the purchase and maintenance of a mixed collection of casts.

DUHRING, LOUIS A., MUSEUM FUND. Founded April 19, 1915. A bequest under the will of Dr. Louis A. Duhring, deceased. The income is to be used for the general purposes of the Department of Archæology and Palæontology.

EDELHEIM, CARL, EXCAVATION FUND. Founded October 30, 1900. A bequest under the will of Carl Edelheim, deceased. Both the principal and income of this fund may be used for archæological excavations in the United States or Mexico.

HERING, WALTER E., FUND. Founded February 26, 1919. The gift of Walter E. Hering. The surplus income, after making payments of stipends to certain beneficiaries, is to be applied toward the purchase of collections, or toward the expenses of explorations, including the transportation thereof, and to or toward defraying the expenses of publications of the University Museum.

JOHNSON, MRS. EMORY R., FUND. Founded October, 1923, by Mrs. Emory R. Johnson, by a gift of $50,000.00. Of this sum $40,000.00 is to be expended for expedition and collection purposes and the remainder added to the University Museum Endowment Fund.

MACAULEY, FRANCIS C., ARCHÆOLOGICAL FUND. Founded June 14, 1906. A bequest under the will of Francis C. Macauley, deceased, giving to the Archæological Association of the University of Pennsylvania all the objects belonging to him that may be on deposit with the University, and the sum of $5,000. The income is to be used for making archæological researches in America.

PEPPER, WILLIAM, HALL ENDOWMENT FUND. Founded December 20, 1899. The gift of Mrs. Frances Sergeant Pepper. To be held in perpetuity by the Trustees for the maintenance and care of that portion of the Free Museum of Science and Art known as the "William Pepper Hall."

SOMMERVILLE, MAXWELL, COLLECTION FUND Founded May 1, 1899. A gift of Maxwell Sommerville, deceased, and further increased by a bequest in his will and a share in his residuary estate. The income is to be used for the care of the collection given by him to the Museum of Science and Art. The gift provides that the collections shall be kept perpetually in the Museum of Science and Art and that they shall be known and designated as the Maxwell Summerville Collections.

SPECIAL EXPLORATION FUND. Created January, 1921.

UNIVERSITY MUSEUM ENDOWMENT FUND. Sundry gifts. The income is to be used for the support of the Museum.

UNIVERSITY MUSEUM GENERAL FUND. Sundry gifts and contributions. The income is to be used for the general purposes of the Museum. See also under "Permanent Endowment Invested in Plant and Equipment" p. 315.

UNIVERSITY MUSEUM EXPEDITION AND COLLECTION FUND. Gifts from sundry persons to be expended for the increase of Museum collections.

MUSEUM NOTES

For the Last Quarter of 1924

PURCHASES.

A pair of Chinese stone lions found at Chen Chou, Honan Province.

The head of a statue of the Egyptian Queen Hatshepsut in black diorite, seven inches high.

A copy of a part of the Koran made in Persia in the 15th century.

An illuminated prayer book of the 14th century.

A section of a fine Persian mosque carpet of the 16th century.

An embroidered coat from Burma.

A stone sacrificial bowl from Ancient Mexico in the form of a puma.

A painted and quilled buffalo robe from one of the Plains Tribes of North American Indians. The paintings represent battle scenes and the workmanship is particularly fine and well preserved.

A group of African carved figures from the Southern Congo.

A group of ethnological specimens from the Guinea Coast.

GIFTS.

From Mr. Morris Wood and Mrs. Logan MacCoy, two Syrian jars, three Roman lamps, one Japanese musical instrument, a Japanese scroll, two Japanese fans, four Japanese textiles, two pairs of leggins, two pairs of mocassins, one knife sheath, one beaded bag and one club of the North American Indians.

From Mrs. Charles Platt, Jr., one Chinese pottery bowl, Sung Dynasty.

From Mrs. Hampton L. Carson, two pottery jars from the Argentine Republic and one pottery jar from Morocco.

THE JOINT EXPEDITION TO MESOPOTAMIA.

The joint Expedition of the British Museum and the University Museum at Ur began work on November 1st. A report has been received under date of November 30th which records progress in the area between the Ziggurat and the northwest

wall of the temenos. The main purpose of this excavation is to determine the architecture and use of the buildings in this area. It is also hoped that articles of special archaeological or historical interest may be found and that inscriptions may come to light that will serve to fix dates.

A second excavation is being conducted immediately adjoining the Temple of E-Nun-Mah on the southwest. In this locality a very interesting building has begun to come to light, but it is too soon to attempt to decide what its purpose may have been.

One of the interesting articles that has been found is an ivory cup with a row of dancing girls in the Egyptian style, carved in relief. Other articles found are inscribed gate sockets, a portion of an inscribed statue, a number of inscribed tablets and a remarkable figure of a coiled snake which had been used as a door socket.

WINTER AND SPRING COURSES OF LECTURES.

Members' Course.

January 3. Wanderings of a Bird Man in Chile. Dr. Frank M. Chapman.

January 10. Leptis Magna—The Great Roman Emporium in North Africa. Dr. Bruno Roselli.

January 17. Masterpieces of Egyptian Art. Prof. Jean Capart.

January 24. Through Central Africa. Mr. Alfred M. Collins.

January 31. The Lost City of Cambodia. Miss Gertrude Emerson.

Story Hour for Children of Members.

January 3. In Babylonia. Sargon of Akkad. Gudea the Priest-King.

January 10. In India. Grateful Animals and Ungrateful Man. Antelope and Hunter.

January 17. In Medieval Europe. Legends of Charlemagne.

January 24. In the Arctic. The Life of an Eskimo Boy and Girl. Illustrated by Lantern Slides and Moving Pictures.

January 31. In Classic Lands. When Legends Came True. Schliemann's Discovery of Homeric Peoples.

February 7. In Ireland. The Renowned Adventures of Daniel O'Rourke. The Legend of Knock Grafton.

February 14. A Travel Talk. A Voyage with Captain Cook.
February 21. In Tibet. The Clever Prince Hunts the Siddhikur. The Promise of Massang.
February 28. In Our Own Land. Kesh-ke-Kosh, a Sac and Fox Indian, will tell Stories and sing some Indian Songs

SCHOOL LECTURES.

Elementary Schools.

February 18 and 19.	Alaska.
February 25 and 26.	The Greeks as Builders and Artists.
March 4 and 5.	The Philippine Islands and Their People.
March 11 and 12.	Life of the Romans.
March 18 and 19.	China and its People.
March 25 and 26.	Japan and its People.
April 1 and 2.	Life in the Valley of the Amazon River.
April 15 and 16.	Egypt.
April 22 and 23.	Central America.
April 29 and 30.	Equatorial Africa and its People.
May 5 and 6.	Indian Life.
May 13 and 14.	Peru, Ancient and Modern.
May 20 and 21.	The Crusades.

NEW MEMBERS.

The following members have been elected.

Sustaining Member

William Zimmerman

Annual Members.

Dr. George A. Barton
Adolphe E. Borie, 3d
Miss Constance Cochrane
Mrs. R. H. Doriss
Henry Fernberger
Mrs. W. H. Heulings
E. F. Lavell
Rufus King Lennig
Miss Clara W. Ravenel
Mrs. Joseph Wellington Shannon
John Haseltine Shinn
O. M. Steppacher
Mrs. William J. Taylor
Mrs. Mary S. Verlenden
Mrs. William F. Willcox

FORM OF BEQUEST

I give and bequeath to the Trustees of the University of Pennsylvania the sum of.....dollars, in trust for the uses of the University Museum. (Here, if desired, specify in detail the purposes.)

SPECIAL NOTICE

In order that The University Museum may give appropriate recognition to the substantial gifts which have been already received, and which will hereafter be donated or bequeathed for the development of its resources and the extension of its usefulness, the Board of Managers have adopted the following classification for contributors and members, and have resolved that the names of the donors of aggregate sums of $25,000 and upwards, in cash, securities, or property shall be inscribed upon a suitable tablet or tablets, to be properly displayed in the Museum.

There shall be five classes of Contributors designated as follows:

Benefactors,	who shall have contributed the equivalent of	$50,000
Associate Benefactors,	" " " " " "	25,000
Patrons,	" " " " " "	10,000
Associate Patrons,	" " " " " "	5,000
Fellows,	" " " " " "	1,000

There shall be four classes of Members designated as follows:

Life Members,	who shall contribute	$500	
Contributing Members,	" " "	100	annually
Sustaining Members,	" " "	25	"
Annual Members,	" " "	10	"

Contributors and Members are entitled to the following privileges: admission to the Museum at all reasonable times; invitations to receptions given by the Board of Managers at the Museum; invitations and reserved seats for lectures; the MUSEUM JOURNAL; copies of all guides and handbooks published by the Museum and free use of the Library.

Board of Managers

President

CHARLES C. HARRISON, LL.D.

Vice-Presidents

JOHN CADWALADER, LL.D. ELDRIDGE R. JOHNSON

LOUIS C. MADEIRA

Secretary

JANE M. McHUGH

Treasurer

F. CORLIES MORGAN

Members Ex-Officio

THE MAYOR OF THE CITY OF PHILADELPHIA
THE PRESIDENT OF CITY COUNCIL
THE PRESIDENT OF THE COMMISSIONERS OF FAIRMOUNT PARK

For the Trustees

JOHN CADWALADER, LL.D.
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CHARLES L. BORIE, Jr.
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